Wild Horse Wind Power Project
Potential Site Study

Prepared for:

Washington State Energy Facility Site Evaluation Council

Prepared by:

Jones & Stokes

October 2003

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Introduction

On July 2, 2003, Wind Ridge Power Partners L.L.C, a wholly owned subsidiary of Zilkha Renewable Energy of Houston, Texas, requested that the Energy Facility Site Evaluation Council (EFSEC or Council) perform a Potential Site Study for the proposed Wild Horse Wind Power Project (Project), a wind turbine electrical generation facility in eastern Kittitas County, Washington. The purpose of this Potential Site Study Report is twofold:

1) Pursuant to the request made by Wind Ridge Power Partners and the requirements of RCW 80.50.175 (3), this report documents the analysis conducted by Jones & Stokes regarding the potential environmental impacts for the proposed potential site;

2) Pursuant to the request made by Wind Ridge Power Partners, Jones & Stokes would prepare a criteria document laying out the information that should be contained in an application to EFSEC should Wind Ridge Power Partners proceed with submittal of a request for site certification of this project. The criteria document that has been developed is attached as Appendix A.

To support the analysis presented in this report, Jones & Stokes reviewed the following documents:

- Wild Horse Wind Power Project Preliminary Environmental Study Work to Support Application for Site Certification to Washington Energy Facility Site Evaluation Council (EFSEC). Wind Ridge Power Partners, LLC. July 2003.

- Kittitas Valley Wind Power Project ASC I and II (Exhibits). Sagebrush Power Partners, LLC. January 2003.

- The Economic Impacts of a Proposed Wind Power Plant in Kittitas County, WA. ECONorthwest. Portland, OR. October 2002.

- Kittitas Valley Wind Power Project Scoping Summary. Shapiro and Associates, Inc. April 2003.

- Palmer, Carroll E. Deputy Director, Yakama Nation Department Natural Resources. Letter to Bonneville Power Administration (BPA). June 19, 2003.

- Kittitas Valley Wind Power Project Initial Completeness Report. Shapiro and Associates, Inc. March 2003.

- Kittitas Valley Wind Power Project - Agency and Interested Parties Contact List
- Young, Andrew. Wild Horse ASC Guidelines Outline. July 29, 2003.
- Yarde, Richard. Environmental Protection Specialist, BPA. Letter to EFSEC regarding Kittitas Valley Wind Power Project. March 2003.
- WEST, Inc. Wildlife Cumulative Impacts from Wind Projects in Kittitas Valley. July 2003.
- Section 5.1 Land Use: Visual Impacts. Wild Horse Wind Power Project. Wind Ridge Power Partners LLC. August 2003.
- 030804 Wild Horse ZVI map2. Simulation Viewpoint Locations. Zilkha Renewable Energy. July 2003.
- Section 8.1 Socioeconomic Impact Section for Wild Horse Wind Power Project. Wind Ridge Power Partners LLC. August 2003.
- Kittitas Valley Wind Power Project Rare Plant Report Addendum #1. Technical Memorandum. Randall Krichbaum, Eagle Cap Consulting Inc. May 23, 2003.
- Wind Power Guidelines. Washington Department of Fish and Wildlife. August 25, 2003.
- Mining Regulations in Washington. Washington Department of Natural Resources. 2003.

This study did not assess the adequacy of the information and study reports submitted by the proponent, nor did it ascertain the validity of mitigation being proposed at this preliminary stage. Such assessments will occur when a formal application is submitted to EFSEC, through both the State Environmental Policy Act review, and EFSEC's adjudicative process. The Potential Site Study rather focused on identification of most likely impacts, and on development of a criteria document that would help to ensure that an application for site certification be complete when formally submitted to EFSEC. Nothing stated or recommended by Jones & Stokes either during the Potential Site Study stage or in this report, shall be interpreted as preliminary approval or disapproval of the potential site by EFSEC.

The Project is proposed to be between 125 and 249 megawatts (MW) in size. The proposed site is located at Whiskey Dick Mountain just north of I-90 between the towns of Kittitas and Vantage, approximately 10 miles east of the town of Kittitas. See Figure 1 for a map of the vicinity. The Project would be located on the high ridge tops in an area of open rangeland that is currently zoned as Forest and Range.

The Project consists of several elements including access roads, wind turbine generators and towers, foundations, underground and overhead electrical lines, one or two grid interconnection substations, one or two step-up substations, one or two feeder lines

running from the on-site step-up substations to the interconnection substations, an operations and maintenance (O&M) center and associated supporting infrastructure and facilities. The Project has transmission and interconnection requests under review with the Bonneville Power Administration (BPA) and Puget Sound Energy (PSE), with the intent to market the electrical energy generated at the project into the local and regional power market consisting of municipalities, cooperatives, investor owned utilities and others. A site layout illustrating these elements is presented in Figure 2.

Several wind turbine generator (WTGs) design scenarios are under consideration for the Project. As a result, the Project could potentially consist of as few as 83 large wind turbines, each with 3 MW generator nameplate capacity, installed for a Project capacity of up to 249 MW, or as many as 125 smaller wind turbines each having 1 MW generator nameplate capacity with an installed Project capacity of 125 MW. Figure 3 presents the dimensions for the maximum/minimum range of parameters considered for the wind turbines. Figure 2 shows 100 wind turbines with a turbine spacing based on a 72-meter (236 feet) rotor diameter, which is in the middle of the range of turbines proposed. Final adjustments to turbine numbers and locations within string corridors would be made to maintain adequate spacing based on the turbine size chosen for the Project. The expected service life of the Project is 20 years, and the proponent anticipates that turbines would be replaced under a re-powering program at that future date.

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Figure 1. Vicinity Map

Figure 2. Project Site Layout for Mid-size Turbine Scenario

Figure 3. Wind Turbine Dimensions

Project Description

The Project consists of several elements, including a road system for access to the various components of the facility, wind turbine generators and towers, an electrical collection system, operation and maintenance facilities, meteorological monitoring station towers, and substation facilities and feeder lines. In addition, three on-site rock quarries would be utilized to provide road gravel for the Project. An on-site concrete batch plant would also be employed. As presented in Table 1 below, an estimated permanent footprint of approximately 130 acres of land area would be required to accommodate the proposed turbines and related support facilities, including transmission feeder line trails. As explained in more detail further in this report, the project site would be located within a project area covering approximately 5,000 acres of open rangeland.

Table 1. Estimated Project Permanent Footprint

Facilities	**Approximate Footprint Area (acres)**
Project Site Roadways and Crane Pads	79
Feeder Line Construction Trails and OH Pole Structure Footprints	20
O&M Facility (50 ft. x 100 ft.) with Parking	2
Visitor Parking Area and Kiosk	2
Step Up Substations 2 @ approx. 3 acres each	6
On-Site Rock Quarries 3 @ approx. 5 acres each	15
Interconnection Substations 2 ea. @ approx. 3 acres	6
TOTAL	**130**

Access roads and adjacent areas

Access to the project site would be on existing private graveled access roads. Roads to the proposed turbines lie on predominantly private land owned by a single landowner and some smaller portions lying on Washington Department of Natural Resources (DNR) lands. These existing roads would be used throughout the life of the Project. Approximately 16 miles of the existing roads would be improved and an additional 10 miles of new gravel roads would be constructed. The roads would generally consist of a 20-foot-wide compacted gravel surface, with no slopes greater than 2:1 to 3:1. Flat areas (approximately 30 feet by 60 feet), would be cleared, compacted and graveled as necessary adjacent to each turbine location to be used as a crane pad. Parking facilities and equipment laydown areas would be constructed adjacent to roads and near the operations and maintenance center and substation. The Project transmission feeder lines would require the installation of a 12-foot wide trail. The PSE feeder line would require approximately 8 miles of trails and the BPA feeder line would require approximately 5 miles of trails. Once construction is complete the trail would remain as minimum maintenance access way, which would be used for inspection and maintenance.

Wind Turbine Generators and Towers

The Project would site a maximum of 125 wind turbines for a Project capacity of 125 MW, or achieve a maximum nameplate capacity of up to 249 MW with the installation of 83 larger wind turbines. The Project would utilize 3-bladed wind turbines on tubular steel towers each ranging from 1MW to 3MW (generator nameplate capacity) and with rotor diameters ranging from 60 to 90 meters (197 to 295 feet) as shown in Figure 3. The Project would use only turbines that have achieved type certification by a reputable and experienced third party verification institute, and demonstrate a design life of at least 20 years. Wind turbines consist of three main physical components that are assembled and erected during construction: the tower, the nacelle (machine house) and the rotor (3-blades). Towers for the Project would be fabricated off site, delivered, and erected at the tower site in two or three sections each. On some turbines, the step-up transformer is situated at the rear of the nacelle, which eliminates the need for a pad-mounted transformer at the base of the tower.

A red light would be attached to the top of each tower to comply with Federal Aviation Administration safety requirements. The wind energy industry is currently discussing alternatives to lighting every tower of a wind farm in order to reduce night visibility and improve aesthetics. It is possible that there may be new standards for illumination of wind farm turbines in the future.

Wind turbines are equipped with sophisticated computer control systems which constantly monitor variables such as wind speed and direction, air and machine temperatures, electrical voltages, currents, vibrations, etc. The control system is at the base of the tower and is always running to ensure efficient and safe operation. Each turbine is connected to a central Supervisory Control and Data Acquisition (SCADA) System as shown in Figure 4 through a network of underground fiber optic cable or copper signal wire. The SCADA system allows for remote control and monitoring of individual turbines and the wind plant as a whole from both the central host computer or from a remote PC. All turbines are designed with several levels of built-in safety such as braking, fire, climbing, and lightening protection and comply with the codes set forth by European standards as well as those of OSHA and ANSI.

Electrical Collection System

Electrical power generated by the wind turbines would be transformed and collected through a network of underground and overhead cables which all terminate at the Project step-up substation(s) as shown in Figure 4. Power from the wind turbines would be generated at 575 Volts to 690 Volts (V) depending on the type of wind turbine utilized for the Project. Pad transformers are interconnected at the high voltage side to underground cables and connect all of the turbines together electrically. At the substation(s), the electrical power from the entire wind plant is stepped up to transmission level at 230 kV and delivered to the point(s) of interconnection. In locations where underground cables are installed in trenches (typically 3 to 4 feet deep that would run along the Project's roadways), a clean fill material such as sand or fine gravel would be used to cover the cable before native soil and rock are backfilled over the top.

Figure 4. Electrical and Communication Collection System

In locations where two or more sets of underground lines converge, pad mounted junction boxes and/or pad mounted switch panels would be utilized to tie the lines together into one or more sets of large feeder conductors and to allow for the isolation of particular string of turbines. It is anticipated there would be 15 junction boxes (each approximately 4 ft. wide by 6 ft. long by 6 ft. high) and 10 switch panels (each approximately 7 ft. wide by 7 ft. long by 5 ft. high). The Project would require approximately 28 miles of underground and 2 miles of overhead 34.5 kV electrical power lines to collect all the power from the turbines to terminate at the step-up transformer substation(s). The Project would also have an extensive electrical grounding system.

Substation Facilities and Feeder Lines

The Project would utilize interconnection possibilities with BPA and PSE lines in the area, although the PSE connection is currently proposed and preferred. If connected to the BPA system, the Project would interconnect with the Columbia to Covington 230 kV or to the Grand Coulee to Olympia 287 kV lines. If connected to PSE's system, the Project would interconnect with PSE's Inter-Mountain Power line (IP line), which currently operates at 115 kV and would be increased to operate at 230 kV. It is possible that power would be fed to both the BPA and the PSE systems resulting in the requirement for two step-up substations, two interconnection substations and two separate feeder lines. The PSE interconnection substation would be located just north of the intersection of the existing PSE IP Line crossing of Interstate I-90 (about 6 miles southwest from the Project site). The BPA interconnection substation would be located at BPA's existing Schultz substation (about 14 miles northwest of the Project site).

A step-up substation or substations would be necessary to step up voltage from the collection lines (at 34.5 kV) to the transmission level (287 or 230 kV) and to provide fault protection. The exact footprint of the substations would depend largely on the utility requirements, the number of turbines used and the resulting Project nameplate capacity which would affect the number of 34.5 kV feeder breakers. The substations and interconnection facilities would each consist of a graveled footprint area of approximately 2 to 3 acres, chain link perimeter fence, and an outdoor lighting system.

Project feeder lines would be fed from the on-site step up substation(s) through a feeder line(s) to the interconnection substation(s). For interconnection with PSE, the Project feeder line would run south from an on-site PSE step-up substation to the PSE interconnect substation and would run mainly along existing roads on private land for approximately 7.25 miles and .25 miles on BLM land. For the interconnection with BPA, the Project feeder line would run west five miles from the on-site BPA step-up substation to the existing BPA Shultz to Vantage 500 kV line corridor. From this point the line would run north within and parallel to the existing BPA corridor for approximately 11 miles to the interconnection substation near the existing Shultz substation.

Turbine Siting

The proposed locations of turbine strings are presented in Figure 2. The turbines would be located within corridors identified in Figure 2, generally in a straight line and near the center of the identified corridors. Turbine locations would not vary from the locations shown by more than 105 meters (350 feet); a potential corridor width of up to 700 feet. Turbines are typically located on top of ridges and relatively flat areas along access roads, and not on slopes. Either spread footing type foundation or a vertical mono-pier foundation would be used. Portions of the work may require over excavation and/or shoring. Onsite excavated materials would be used for backfill where practicable. It is estimated that an excess of 125 cubic yards of excavated soil would be generated at each foundation site that would be used to level out low spots on the crane pads and roads consistent with the surrounding grade.

The exact location of the turbines along the planned roadways may need to be altered from the shown plan in Figure 2 due to a number of factors including:

- The results of the geotechnical investigations at each surveyed turbine location may reveal underground voids or fault line locations. In this case, the turbine location may need to be altered or eliminated.
- The final on-site field survey with the meteorologists may dictate that turbines be spaced slightly closer together in some areas and further apart in other areas.
- If, at the time of construction, a turbine size with a large rotor diameter is to be used, the turbine spacing would be increased and the overall number of turbines would be reduced.
- The final field measurement test surveys of communication microwave paths may require that some turbine locations be adjusted slightly to avoid line-of-sight interferences.

Meteorological Monitoring Station Towers

Five permanent meteorological towers (met) towers would be connected to the wind plant's central SCADA system as shown in Figure 4. The met towers would have multiple sensors to track and monitor wind speed and direction and temperatures. The towers would have a grounding system similar to that of the wind turbines and would be as tall as the hub height (HH) of the WTGs, which is 46-80 meters (151-262 feet).

Rock Quarries and Concrete Batch Plant

Three rock quarries and one temporary concrete mixing plant would be established on the Project site during construction. Each rock quarry would have a disturbance footprint of approximately 5 acres with a depth of approximately 10-15 feet. The locations of the on-site rock quarries and concrete batch plant are indicated on the Project layout (Figure 2).

Water Usage

Water for Project construction would be obtained from local providers with existing water rights and would be trucked to the site by the construction contractor. Construction of the Project could require some water from public water supplies for road construction, dust suppression, concrete wetting, soil compaction, and other construction activities. Estimated water use for all construction-related needs other than dust control is 1 million gallons. The amount of water needed for dust control would vary from an estimated 1 million gallons (with dust suppressant added) to 4 million gallons (water alone). Water used for dust suppression would be directly applied using tanker trucks equipped with rear end sprinkler systems and would be absorbed on site or evaporated.

Operation of the Project would not require the use of any water for cooling or any other use besides the domestic well serving the limited needs of the O&M facility. The Project would not generate process water and there would be no point source discharge to nearby surface waters. A well drawing less than 5,000 gallons of water a day would be installed to provide water for domestic use. The well would be installed pursuant to all pertinent state and local requirements.

Hazardous Materials

The presence of hazardous materials during construction and maintenance would be limited, in most cases, to vehicle and equipment maintenance and refueling. Any spills would be immediately addressed pursuant to the requirements of a Construction Phase Spill Prevention and Contingency Plan, which will be required, approved, and enforced by EFSEC.

Mitigation Parcel

As part of the proposed project, Wind Ridge proposes to set aside approximately 600 acres of land located within the project area in Section 27 (T18N, R21E) to offset potential environmental impacts that may result from construction and operation of the Project. The parcel of land would be bisected along a ridgeline where one of the proposed turbine strings would be constructed. Wind Ridge proposes to fence this parcel to eliminate livestock grazing. In accordance with Washington Department of Fish and Wildlife (WDFW) guidelines for wind power projects (WDFW 2003), grassland habitat would be replaced at a 1:1 ratio and shrub-steppe habitat at a 2:1 ratio. Use of Section 27 as a mitigation would result in the protection of an approximately 1-mile segment of Whiskey Dick Creek. In addition to setting aside land within Section 27, Wind Ridge proposes to fence the springs located at the site to reduce livestock grazing at these locations.

As well as the aforementioned mitigation measures, Wind Ridge proposes to convene a Technical Advisory Committee (TAC) composed of representatives from WDFW, U.S. Fish and Wildlife Service (USFWS), Kittitas County, local interest groups (e.g. Kittitas Audubon Society), and Project landowners, along with the proponent, to evaluate and implement the mitigation and monitoring program developed for the Project.

Operations and Maintenance Facility

The O&M facility would be located near the center of the Project site and would serve as the central base for operations. The overall facility would have a footprint of approximately 2 acres and would include a main building with offices, spare parts storage, restrooms, a shop area, outdoor parking facilities, a turn around area for larger vehicles, outdoor lighting and gated access with partial or full perimeter fencing.

Project Cost Estimate

Total projects costs, including the equipment, construction, development, financing, legal, study costs etc. for projects similar to the one being proposed typically range from $1,000 to $1,200 per kilowatt of installed nameplate capacity, according to Wind Ridge. Therefore, for a Project size of 125 MW, the Project might cost from $110,000,000 to $132,000,000 and for a Project size of 249 MW, the Project cost might range from $225,000,000 to $270,000,000.

Construction Schedule and Operation Activities

The construction of the Wild Horse Wind Power Project would be performed in several stages and would include the following main elements and activities:

- Grading and field construction office area (also used for O&M building);
- Construction of site roads, turn-around areas and crane pads at each wind turbine location;
- Construction of the turbine tower foundations and transformer pads;
- Installation of the electrical collection system; underground and some overhead lines;
- Assembly and erection of the wind turbines;
- Construction and installation of the substation; and
- Plant commissioning and energization.

The tentative construction schedule is based on obtaining a site certificate from Washington EFSEC by July 1, 2004. The longest lead-time items are typically the substation transformers, usually requiring from 8-12 months from time of order to delivery and the wind turbines, generally requiring from 5-7 months. It is expected that project construction would occur over a period of approximately 1 year from the time of site certification to commercial operation and would require the involvement of more than 250 personnel. At peak, it is expected that about 160 personnel would be on-site at one time, as multiple disciplines of contractors complete their work simultaneously.

The Project would be operated and maintained by a team of approximately 14 to 18 personnel. The O&M team would staff the Project during core operating hours, 8 hours per day, 5 days per week, with weekend shifts and extended hours as required. The Project's SCADA system would stay on-line full time and there would always be a local, on-call technician who can respond quickly in the event of an emergency or outage.

The proposed project-operating plan includes a planned outage schedule cycle that consists of inspection, and subsequent services every 6 months. The 6-month servicing would generally take a WTG off-line for one day and include inspections and testing of all safety systems, inspection of wear-and-tear components such as seals, bearings, bushings, etc., lubrication of the mechanical systems, electronic diagnostics on the control systems, pre-tension verification of mechanical fasteners and overall inspection of the structural components of the WTG. Blades are inspected and cleaned annually to maintain aerodynamic efficiency. Electrical equipment (e.g. breakers, relays, transformers) generally requires weekly visual inspection and testing or calibrations every 1 to 3 years.

Existing Site Conditions

The Project area, covering approximately 5,000 acres of remote open rangeland, is located within the Columbia Basin physiographic province (Franklin and Dyrness 1988), in central Washington at the eastern base of the Cascade Range approximately 7 miles west of the Columbia River. Elevations range from approximately 2,800 feet to nearly 3,900 feet at the Whiskey Dick Mountain summit. With the exception of Whiskey Dick Mountain, much of the site is a relatively flat plateau with steep-sided drainages eroded into it. Ephemeral and spring-fed creeks flow primarily eastward from the Project into the Columbia River (e.g. Whiskey Dick and Skookumchuck). Whiskey Jim Creek flows into Parke Creek. Springs mapped onsite include Wild Horse, Skookumchuck Heights, Dorse, Reynolds, Thorn, Government, Pine, and Seabrock. Dorse Spring and an unnamed spring in the south part of the Project flow south and west, draining into the Yakima River.

Lying within the rain shadow of the Cascade mountain range, the site reflects the characteristic semi-arid conditions common to the region. Temperatures recorded in nearby Ellensburg (15 air miles west) indicate coldest average monthly temperatures in January (18.6 to 34 degrees Fahrenheit) to warmest average temperatures between 53 and 84 degrees Fahrenheit in July (Lack et al. 2003). Average total annual precipitation at Ellensburg is 8.9 inches and average annual snowfall is 28 inches (WRCC, 2003 in Lack et al. 2003).

Two earthquake databases queries (USGS/NEIC 1973-Present and Significant U.S. Earthquakes (1568-1989), each managed by the U.S. Geological Survey National Earthquake Information Center) identified 63 seismic events of all magnitudes and intensities that occurred between 1872 and 2003 within 60 miles of the proposed project site (USGS 2001). The 1872 earthquake registered a magnitude of 7.0 and occurred 57 miles from the proposed project site. Records since 1959 indicate the Project area has experienced very low seismicity. According to the Uniform Building Code Seismic Risk Map of the United States, the Project site is located in Seismic Zone 2B. This seismic zone corresponds to an intensity VII earthquake on the Modified Mercalli scale, which can produce moderate damage, should one occur. No faults, either active or potentially active, have been mapped in or near the Project site.

In general, the Project site is located on relatively low-gradient topography with relatively thin soils overlaying basalt bedrock. The bedrock underlying the proposed Project site consists of Miocene-age basalt flows, and includes the upper Grande Ronde Basalt and the Frenchman Springs Member of the Wanapum Basalt, with interbedded Ellensburg Formation. The terrain does not appear to be landslide-prone; however, one large landslide has been mapped on the south side of Whiskey Dick Mountain in the vicinity of proposed B, F, and G turbine strings (see Figure 2). The direction of movement of this landslide is to the south, away from the Project.

A localized outcrop (Vantage Member of the Ellensburg Formation) of interbedded, weakly cemented, volcaniclastic sandstone, siltstone, and minor dark mudstone is mapped in the southeast portion of the Project area. Based on observations and documentation of springs in the Project site, it appears that the springs are located along a relatively horizontal low-permeability zone that likely correlates with the Vantage Member.

Soils in the Project area along the ridgetops consist primarily of complexes of shallow soils formed in residuum weathered from basalt and loess and include the Rock Creek Series, the Argabak Series, and the Vantage Series. Several areas of continuous, relatively horizontal benches have been observed at two elevations, one of which may be similar in elevation as the Vantage Member.

The Project site falls within the big sagebrush-bluebunch wheatgrass, *Artemisia tridentata-Agropyron*, steppe vegetation zone of eastern Washington as characterized by Daubenmire (1970). Seven habitat types have been mapped in the Project area, including shrub-steppe, grassland, grassland/talus, pine forest, wood riparian, talus, and a small seasonal water body, of which shrub-steppe comprises nearly 88% of the project area (Lack et al. 2003). A denser shrub layer is found on deep-soiled sites on slopes and dominated by big sagebrush, antelope bitterbrush (*Purshia tridentata*), or squaw current (*Ribes cereum*). More moderate shrub coverage is found on flat to gently sloping areas. Most of the ridgetops, where the Project facilities are proposed, are primarily covered in sparse low shrub cover such bitterbrush and stiff sage (*A. rigida*), rocky grassland, and talus. Vegetation in riparian areas within the Project site includes black hawthorn (*Crataegus douglasii*), golden currants (*Ribes aureum*), and native grasses. Forested habitat is limited within the Project area, with one localized area of mature Ponderosa pine (*Pinus ponderosa*) bordering the outflow creek below Pine Spring. Habitat within the proposed feeder line corridors is also dominated by shrub-steppe vegetation, with some woody riparian vegetation present.

Although potential habitat was identified on-site, no federal or state listed Endangered, Threatened, Proposed, Candidate, or Sensitive plant species were observed during surveys conducted at the site (Lack et al. 2003). One plant species, hedgehog cactus (), a state "species for review" was observed in the Project area. Diffuse knapweed (*Centaurea diffusa*) and spotted knapweed (*C. maculosa*), along with Canada thistle (*Cirsium arvense*), are noxious weeds known to be present at the site (Eylar, 2003).

Wetlands within the Project area were identified and mapped. One potential seasonal wetland exists near proposed 'String H' (see Figure 2). Soils at the surface indicate a period of standing water, however the area is generally dry by late May with little to no wetland vegetation present.

This wetland is perched and not likely to be jurisdictional under Army Corps guidelines. There are no plans to fill or construct near this wetland.

Wildlife use at the project site includes avian, big game, reptile, and small mammals. No fish are known to occur at the site. Bats could potentially use the site based on the presence of some roost structures and springs for foraging and watering areas. Bird species present at the site include passerines, corvid, raptors, and waterfowl. Four species (i.e. horned lark, snow bunting, European starling and common raven) were most commonly observed at the site. Raptor use is greatest in the spring/summer with American kestrels, red-tailed hawks, and golden eagles most abundant (Erickson et al. 2003). In addition, the Project is located within habitats designated by WDFW as winter range for mule deer and elk, is located adjacent to the Quilomene migration corridor, and the northern boundary of the Project is approximately 0.5 mile from the Colockum elk calving area. Mule deer and elk use the site on a year-round basis, with use more concentrated in the winter.

The region in which the Project is located is a rural setting with low population density. The land within the Project area is privately owned, except a small portion in the southeast corner administered by the DNR. Livestock grazing is the primary land use, although recreation uses, such as hunting and off-road vehicle use, appear to be common. The only structures on the site consist of a collection of antennae at the communication facility on Cribb Butte (3,558-foot elevation), located just outside the southeast border of the Project area, on land owned by the DNR, and several meteorological towers at locations scattered across the Project area. Beacon Ridge Road runs through the center of the Project area and is improved in the southern-most section of the Project area. The site is not crossed or bordered by any public roads. The closest public roadway is the Old Vantage Highway, which lies over 1.5 miles to the south. Surrounding land uses include limited cattle ranching, gravel quarrying, a landfill, and a few private residences.

There are a total of 20 cultural resources sites that have been recorded within the Project area. Two of these, as prehistoric archeological sites, are on the National Register of Historic Places (NRHP) as Government Springs and The Pines (OAHP 1975). All recorded cultural resources sites are located outside areas proposed for the Project's siting.

Summary of Potential Environmental Impacts including Cumulative Impacts

Background

This Potential Site Study was prepared to develop criteria for the proponent to use to prepare their application for Site Certification to EFSEC. It was also prepared to inform the Council about agency or public concerns expressed during the study and to summarize potential impacts. This section of the study describes some of the potential environmental impacts or issues associated with the Wild Horse Wind Power Project at the proposed location. The comments below are not the basis of an independent environmental assessment as no Environmental Impact Statement (EIS) has been prepared to date. Nor are the public comments complete because State Environmental Policy Act (SEPA) scoping has not been conducted. Additional concerns may be raised through the scoping process. Also, no attempt was made at this stage to incorporate potential impacts from the Kittitas Valley or Desert Claim (enXco) projects. The summary below is specifically focused on the Wild Horse Wind Power project, and is limited to most likely impacts. Resources not expected to be impacted by the project are not listed.

Potential Environmental Impacts

Noise – Although there can be turbine noise and low frequency noise from wind turbines, the remote location of this project and distance to nearest homes suggests that noise issues would be minor, and perhaps limited to construction. It is possible that blasting may be needed for some foundation construction. Detailed noise analyses to be provided by the proponent in the Application for Site certification would provide exact information on the scope of the impacts.

Water Quality/Fisheries – There should be no impacts to fisheries on or near the site as there is no fishery resource. There may be impacts much further downstream if power line access roads or transmission towers are built close to or across fish bearing streams. The proponent has indicated that all efforts would be made to avoid construction of tower footings close to streams. Access road locations and crossings of streams and drainages have not been finalized at this stage.

The proponent plans to drill a well for the O&M facility, which would be adequate for 6-8 people. The amount of water used would likely be 1,000 gallons per day or less. The well depth and groundwater conditions would determine whether the well would affect local shallow springs. This depth and potential effect is not known at this time.

Wildlife – The site is used by elk and deer for fall and winter grazing, competing with cattle. The wind farm may discourage some large mammals from using the site, unless

they get accustomed to the towers, just as they get accustomed to power line towers. The major difference, however, is the moving blade. A potential plan to eliminate grazing on the site by cattle may result in a net increase in forage vegetation, and net reduction in ground disturbance, which could be slightly beneficial to deer and elk.

Bird strikes are always an important issue for wind farms. There is a potential for such strikes. The Application would address the number of resident birds that may be killed or injured by flying into the turbines or towers. Based on the materials reviewed, the analysis has not identified any major avian migration corridors. Detailed analyses presented by the proponent in their application to EFSEC and reviewed through the SEPA process would be required to confirm the presence of such corridors.

Vegetation – The shrub steppe vegetation at the site is sparse and representative of a desert climate. Vegetation losses would occur at new or widened access roads, under buildings and parking areas, and under tower footings. There would be approximately 300 acres of temporary impacts to habitat/vegetation during construction for trenches, access roads and staging areas. There would be approximately 100 acres of permanent loss. Proposed mitigation for this loss includes fencing of springs and fencing of 500 acres of shrub steppe and riparian habitat. This might include approximately 20,000 lineal feet (4 miles) of new fence, if it is found necessary to fence all four sides of a single site. Through EFSEC's review of a formal application, an assessment would be made as to whether the mitigation being offered is sufficient.

Visual Resources – The project can be seen from the East, West and South. It is a few miles from the nearest population centers. It would be visible from scenic viewpoints on I-90 East of the Columbia River and from the Gorge Amphitheater recreation facility. The site lies west of the Gorge and the amphitheater itself faces northwest – not west. The turbines would be primarily visible from: I-90 west of the Columbia River, I-90 south of Ellensburg, and Highway 10 south of the site – the old Vantage Highway.

The nearest residences are approximately 1.5 miles north and south of the site.

Transportation – No impacts to local transportation resources are expected during operation. The requirement for 250 construction workers to commute to and park at this remote site may create some congestion and safety issues for several months during the construction period. The proponent proposes to address these impacts with appropriate planning and parking improvements.

There are some turning radii and site distance issues that should be corrected before construction. The proponent has been asked to confirm load-bearing capacity of roadways and to consider improvements to handle trucks delivering the large turbine parts, and to give consideration to the impacts of WSDOT work planned for I-90 between Ryegrass and Vantage.

Recreation and Cultural Resources– The proposed project is in the vicinity of the Gorge Amphitheatre, and Gingko State Park. Both historic and archeological sites have been identified in the project area.

Land Use – Although on private property, area residents have used the site for horseback riding, motorcycle riding, camping and hunting. The proponent may restrict or prevent these activities at this site in the future. This would reduce recreation opportunities in the area and might at the same time improve wildlife habitat. Recreational use is sparse. Shift of such use to other areas is not likely to stress the capacity of other sites. This site is not public, or developed for recreation.

Housing and Employment – The project would employ a total of 250 construction workers over one year of construction, and it is expected that approximately 190 would be working during the peak construction periods. The proponent has predicted that 71 of these jobs would be local hires.

Revenues and Expenditures – The project would pay sales tax, property tax, and wages, much of which would accrue to Kittitas County and the City of Ellensburg. The proponent has estimated that employment and payments during construction may total $4.8 million in the County (although some may be sent outside of the County) and annual employment impacts would total $1.6 million. The County would receive approximately $1.4 million in property taxes the first year of operation. Public service expenditures have yet to be identified.

Cumulative Impacts – These are impacts of the project when added to the impacts of past, present, or reasonably foreseeable future actions. Generally, the impacts of past and present actions are evaluated as a part of the affected environment through the SEPA review process. Future actions are the focus of potential impacts, and these include the other two wind farms being proposed in Kittitas County. While this analysis has not been completed, there may be overlapping construction work force issues to traffic, housing and employment. Visual impacts may be cumulative but only moderately so since this project is in the east end of the county, and far removed from the other two proposal sites. There may be cumulative wildlife loss impacts. Cumulative economic impacts are likely to be positive.

Stakeholder Contacts and Comments

Several resource agencies, county and city staff, and other interested groups were contacted for their input regarding project related impacts. Comments were summarized from phone conversations, for the most part, and are specifically related to the Wild Horse Wind Power Project and issues raised for other projects in the area (i.e. Kittitas Valley and Desert Claim) are not incorporated. Overall, the USFWS and Yakama Indian Nation have concerns about raptors and other birds being impacted by the wind turbines. There is also a concern from USFWS, WDFW, DNR, and Kittitas County regarding the potential loss or degradation of shrub-steppe habitat from construction activities, introduction of noxious weeds, or range fires. With Ginkgo State Park in the vicinity, Washington State Parks has concerns about viewshed impacts. Table 2 summarizes the contacts and comments and/or concerns related to the proposed Wild Horse Wind Power Project.

Table 2. Summary of Agency Contacts and Comments

Agency	Contact	Status/Agency Comments or Concerns
Washington State Office of Archaeology and Historic Preservation	Dr. Robert G. Whitlam	Dr. Whitlam is reviewing the Lithic Analysis document.
Bonneville Power Administration	Rick Yarde	Rick Yarde confirmed that NEPA compliance would be achieved in the future if needed and that BPA would tier to the Business Plan EIS. He plans to attend the scoping meeting.
Department of Ecology	Mark Dirkx	Mark Dirkx requested information on BACT emission controls on stationary processing equipment, and descriptions of emission controls for fugitive dust for rock quarries and haul roads.
Department of Ecology	Curt Horner	Increase of 10dBA over existing criteria should not apply to this project in determining impacts.
Gorge Amphitheater	Bill Parsons, General Manager	Interested in how visible the wind power project would be from his facility. No other comments to date.
Kittitas County Fire Marshall	Darold Gaidos	Concerned about the potential for starting wildfires and their subsequent control.
Kittitas County Noxious Weed Control Board	Todd Davis; Mark Eylar (Asst Coord) and Seth Kukes, District 9 Inspectors, Kittitas Co. Noxious Weed	1) Musk thistle is main concern; 2); Russian knapweed is a primary concern, not observed yet on Whiskey Dick (closer to Gingko and Vantage); 3) Canada thistle, some; 4) diffuse (more) and spotted knapweeds. There is a concern that noxious weeds would establish at any groundbreaking sites, including roadways. BMPs need to be implemented and weed control used along roadsides.
Kittitas County Planning Director	Clay White, Planner II	No comments or concerns about the project thus far. Sufficient previous applications have been submitted for other projects.. SEPA review of application would bring out any issues at that time.
National Forest Service; Cle Elum Ranger District	Floyd Rogalski	A great distance from the National Forest area. No comments to contribute at this time.

Agency	Contact	Status/Agency Comments or Concerns
State Historic Preservation Office	Dr. Allyson Brooks	Ms. Brooks is reviewing Lithic Analysis document.
U.S. Fish and Wildlife	Gregg Kurz	Contacted USFWS for species list (e.g. *Spiranthes diluvialis*). Concerned with loss of native sagebrush. Requests emphasis be placed on conserving native habitat (shrub-steppe habitat). The site has potential sage grouse habitat. Also expressed concern over potential impacts to raptors. Recommended that the loss of habitat due to roads and pads/other construction and sedimentation from roads be addressed.
WA. State Department of Transportation (South Central Region)	Rick Holmstrom	A truck hill-climbing lane is being added to I-90 in '04 & '05,.Construction of this lane would conflict with turbine and equipment deliveries if it occurred during the proposed construction period. This may necessitate an alternative route, such as through Kittitas, between Ryegrass and Vantage.
Washington Department of Fish and Wildlife	Brent Renfrow Lauri Vigue	Reference PHS Data Brent Renfrow expressed concern over the Colockum elk Herd - habitat; loss of shrub-steppe habitat; and fragmentation of shrub-steppe habitat. He also expressed concern over grazing and fire, suggesting that grazing should be managed such that a healthy plant community is maintained. Potential impacts to sage grouse were also a concern, and he expressed that they can be very difficult to detect even when specifically being surveyed for. Lauri Vigue requested in addition to consultation with the local biologists, consultation with the local Audubon Society would provide a good source of avian information. As referenced in the WDFW Windpower Guidelines, established federal methodologies should be used to assess habitat, and that the quality of shrub-steppe habitat be rated.
Washington Department of Natural Resources	Sandy Moody, Washington Natural Heritage Program (WNHP) David Wilderman Cindy Preston	DNR: Noxious weeds: 1) Limit introduction and control presence. 2) Restore any disturbed habitat that is outside permanent footprint. DNR: Suggests proponent include in their permit for reclamation of proposed site: 1) all topsoil will be saved for final reclamation, 2) slopes will be no greater than 2:1 to 3:1, 3) all water will stay on site, slope to the high wall, and 4) topsoil will be spread in late fall with native grass seed. WNHP: Perform current WNHP database inquiry request (6 to 12 months)
Washington State Parks	Ginkgo State Park Tom Burkell, Gingko State Park Ranger	Concern: View shed; however, he thinks the project would be visually behind Ryegrass Ridge.
Wenatchee National Forest	Darrel Kenops, Director	Deferred to Floyd Rogalski of the National Forest Service. Cle Elum Ranger District represents Kittitas Co. so the comments we received from the Cle Elum Ranger District are acceptable.

Agency	Contact	Status/Agency Comments or Concerns
Yakama Indian Nation	Meredith Bruch	A survey should be conducted and resources should be avoided. There are known sites in the area, but likely are many unknown sites as well. Consultation with Yakama would be appreciated if artifacts are found. Another concern expressed both by Ms. Bruch, and previously by the Yakama Indian Nation (Palmer 2003), with respect to other wind generation development in the vicinity of the Yakama Indian Nation's ceded lands is harm to birds from the turbines, especially cumulative impacts to culturally significant avian species, as well as other culturally significant plant and wildlife resources.

The following people were contacted indirectly by mail or via phone message, and have not responded. Their lack of response to date is not assumed to be a lack of comment or interest:

Ted Barkley, City of Ellensburg
Planning Department, City of Kittitas
John St. Pierre, Colville Tribe
Keith Johnson, Kittitas Audubon Society
Nina Carter, Washington Audubon Society
Caroll Palmer, Yakama Nation - Natural Resources

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Erickson, W., Young, D., Johnson, G., Jeffrey, J., Bay, K., Good., R., and H. Sawyer. 2003. Wildlife Baseline Study for the Wild Horse Wind Project. West, Inc. Cheyenne, WY.

Eylar, Mark. 2003. Assistant coordinator and inspector for Kittitas County Noxious Weed Control Board. Telephone communication. August 2003.

Franklin, J.F. and C.T. Dyrness. 1988. Natural Vegetation of Oregon and Washington. Oregon State University Press. Corvallis, OR.

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U.S. Geological Survey. Historic Seismic Events. http://neic.usgs.gov/neis/epic/epic_circ.html. Accessed 2001 and October 2003.

Washington Department of Fish and Wildlife. 2003. Wind Power Guidelines. Olympia, WA.

WRCC. 2003. Western Regional Climate Center website. http://www.wrcc.dri.edu

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Appendix A

Criteria Document

Final Criteria Document

Wild Horse Wind Power Project Potential Site Study

Prepared for:

Washington State Energy Facility Site Evaluation Council
925 Plum Street
Olympia, WA 98504-3172

Prepared by:

Jones & Stokes
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Bellevue, Washington 98005-1946
425/822-1077

September 2003

This document should be cited as:

Jones & Stokes. 2003. Wild Horse Wind Power Project. Potential site study. Draft criteria document. August. (J&S 03323.03.) Bellevue, WA. Prepared for Washington State Energy Facility Site Evaluation Council, Olympia, WA.

BACKGROUND AND PURPOSE

EFSEC has established general and specific guidelines in Chapter 463-42 WAC (Title 463, Washington Administrative Code) for the preparation of Applications for Site Certification (ASC) pursuant to Chapter 80.50 RCW. This Criteria Document, developed as part of a Potential Site Study for the Wild Horse Wind Power Project, provides Wind Ridge Power Partners, LLC (Wind Ridge), a fully owned subsidiary of Zilkha Renewable Energy, with more detailed criteria regarding responses to the information requirements of those guidelines. For each section of Chapter 463-42 WAC, Wind Ridge is requested to provide the information asked for in the guidelines and the criteria. For some WAC sections and subsections, the guidelines provided within the text of the WAC section are detailed enough that additional criteria are not required.

The ASC format preferred by EFSEC consists of the following:

- Cover letter and accompanying material.
- ASC Part I—this will consist of an Environmental Report that will follow the general format of an EIS.
- ASC Part II—this will consist of technical appendices that provide additional information in response to Chapter 463-42 WAC that may not be required by the State Environmental Policy Act (SEPA).

By providing the information requested in the guidelines and criteria presented in this chapter, Wind Ridge can provide EFSEC with (1) a clear understanding of the proposed project, and (2) Wind Ridge's assessment of the project's potential impacts. This approach is intended to assist in streamlining the review of the ASC and the preparation of an Environmental Impact Statement (EIS) to meet the requirements of the Washington State Environmental Policy Act (SEPA).

These guidelines and criteria identify the minimum information to be included in the ASC, expanding upon the requirements of Chapter 463-42 WAC. They also identify applicable SEPA requirements and other relevant regulatory requirements. In some sections of these guidelines and criteria, one or more of these three categories (Chapter 463-42 WAC, SEPA or Other) may not have requirements applicable to the Wild Horse Wind Power Project. For completeness, the phrase "not applicable" or N/A has been included under the appropriate category.

Although Wind Ridge may provide additional information (within the basic format of an EIS), Wind Ridge should provide the information requested in these guidelines and criteria to present the Council with an ASC that is as complete and responsive as possible.

This report inserts the criteria within EFSEC Guidelines (463-42 WAC) and under appropriate SEPA headings (197-11 WAC). Criteria in related areas are kept together under principal SEPA headings to improve readability. The application itself would likely address all criteria under appropriate subheadings.

For further clarification, an abbreviations and acronyms list is included with this document.

References

Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. Classification of wetlands and deep water habitats of the United States. (FWS/OBS-79/31.) U.S. Fish and Wildlife Service. Washington, DC.

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Cooke, S. S. 1997. Wetland and buffer functions semi-quantitative performance assessment methodology. Prepared by Cooke Scientific Services. Seattle, WA.

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Washington Department of Fish and Wildlife. 2003. Wind Power Guidelines. August 25, 2003.

Acronyms

Acronyms

Acro/Abbrev	Spelled Out
ADT	Average Daily Traffic
ASC	Application for Site Certification
BA	Biological Assessment
BACT	Best Available Control Technology
BLM	Bureau of Land Management
BMPs	Best Management Practices
BPA	Bonneville Power Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
County	Kittitas County
DNR	Department of Natural Resources

Acro/Abbrev	Spelled Out
Ecology	Washington State Department of Ecology
EFSEC	Washington State Energy Facility Site Evaluation Council
EMF	Electromagnetic Field
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
LOS	Level of Service
MTCA	Model Toxics Control Act
NEPA	National Environmental Policy Act
NMFS	see NOAA Fisheries
NOAA Fisheries	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NSR	Noise Sensitive Receiver
O&M	Operations and Maintenance
PHS	Priority Habitat and Species
PSE	Puget Sound Energy
QA/QC	Quality Assurance/Quality Control
SARA	Superfund Amendments and Reauthorization Act
SCA	Site Certification Agreement
SEPA	[Washington] State Environmental Policy Act
SWPPP	Stormwater Pollution and Prevention Plan
TESC	Temporary Erosion and Sedimentation Control
UBC	Uniform Building Code
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WDFW	Washington State Department of Fish and Wildlife
WNHP	Washington State Natural Heritage Program
WRPP	Wind Ridge Power Partners, LLC
WSDOT	Washington State Department of Transportation

Table of Contents

WAC Requirements

Not applicable.

SEPA Requirements

Not applicable.

Other Requirements

A. Provide a detailed table of contents for the Environmental Report and for the Technical Appendices.

APPENDICES

List of Tables

WAC Requirements

Not applicable.

SEPA Requirements

Not applicable.

Other Requirements

A. Provide a detailed table that cross-references information provided in the ASC for the 463-42 WAC requirements and SEPA guidelines and other criteria with where the information is provided under the general EIS format subheadings.

List of Figures

WAC Requirements

Not applicable.

SEPA Requirements

Not applicable.

Other Requirements

A. Provide a list of figures as presented in the ASC.

Summary

WAC Requirements

Not applicable.

Washington State Environmental Policy Act (SEPA) Requirements

A. Provide a summary that briefly states the proposed project's objectives, specifying the purpose and need, the major conclusions, significant areas of controversy and uncertainty, if any, and how the project meets the public interest. Identify the issues to be resolved, including the environmental choices to be made among alternative courses of action and the effectiveness of mitigation measures. Include a summary of the proposal, impacts, alternatives, mitigation measures, and significant adverse impacts that cannot be mitigated.

Other Requirements

None.

Introduction

Purpose and Need for the Project and Associated Facilities

Decisions to Be Made

Description of Alternatives

Proposed Action

No Action Alternative

Alternatives Considered

Summary of Public Involvement/Consultation/Coordination

Summary of Potential Impacts and Mitigation Measures

Cumulative Impacts

Global Warming

Regional Air Quality

Water Resources

Regional Energy Supply

Electrical Transmission Lines

Transportation, Population and Housing

Cultural Resources

Fish, Wildlife, Native Plants

Visual Resources

Land Use

Public Services and Utilities

Revenues and Expenditures

Issues to be Resolved

Proposed Project and Alternatives

Introduction

WAC Requirements

WAC 463-42-012 General – Organization – Index. *Except as may be otherwise approved by the council and except as otherwise provided below with respect to applications covering nuclear power plants, the contents of the application shall be organized in the same order as these guidelines.*

A. It is recommended that the Wind Ridge Power Partners, LLC, organize the application in the manner of an EIS. A section of the Application for Site Consideration (ASC) is to consist of a cross-reference table. This table is to list each section of Chapter 463-42 WAC and indicate which section of the ASC provides the applicant's response to that section of Chapter 463-42 WAC.

(1) To aid in the council's review under SEPA and chapter 463-47 WAC, WAC 463-42-302 through 463-42-382 are similar to the elements required in an environmental impact statement.

No response necessary.

(2) In the case of an application covering a nuclear power plant, the environmental report prepared for the nuclear regulatory commission may be substituted for the comparable sections of the site certification application, provided that the environmental report is supplemented as necessary to comply with this chapter and that an index is included listing these guidelines in order and identifying where each applicable guideline is addressed.

Not applicable to the Wild Horse Wind Power Project.

SEPA Requirements

A. Provide a list of key individuals who contributed to preparation of the ASC and the responsibility of each person.

Other Requirements

Not applicable.

The Applicant

WAC 463-42-015 General – Description of applicant. *The applicant shall provide an appropriate description of the applicant's organization and affiliations for this proposal.*

A. Provide this information in Section 2.1 (Introduction) of the ASC. Describe the organization and ownership of Wind Ridge Power Partners, LLC, Zilkha, and other owners.

Purpose and Need

Decisions Yet to Be Made

Description of the Proposed Project

The applicant should describe the proposed project and alternatives. The applicant should clearly describe the licensing concept it intends to pursue for this project and the range of potential project alternatives that the applicant is seeking a site certification for. In particular, the applicant should describe in detail the major project components that have not been selected, and the range of component sizes that the applicant may wish to build.

This discussion should explain to the Council that the Site Certification Agreement would not be for a specific project, but for a concept with variables in tower height, tower design, tower number and total energy output. Also explain why a specific project is not being proposed at this time; and why a specific MW output is not being proposed at this time.

The applicant should explain when the decision will be made regarding the number of towers, size and specific location, and what plans the applicant may have to come back to EFSEC to discuss this decision before construction begins, assuming a SCA is issued.

In addition, the applicant should explain which transmission lines will be part of the proposed project application to be licensed by EFSEC, and which transmission lines will be considered in the EIS for analysis of future impacts.

WAC Requirements

WAC 463-42-125 Proposal – Site description. *The application shall contain a description of the proposed site indicating its location, prominent geographic features, typical geological and climatological characteristics, and other information necessary to provide a general understanding of all sites involved, including county or regional land use plans and zoning ordinances.*

A. Provide a general description of the proposed locations of project facilities, including the electrical transmission lines. This should include a brief description of key geographic features, climatological features, surrounding land use, and designations of the project facility locations in applicable land use plans and zoning ordinances.

B. Briefly describe the land uses surrounding the site and transmission line corridors, and include the distances to the nearest residences and other local sensitive resources such as parks. Discuss potential infringement on other uses of the general area surrounding the project site and the transmission line corridor.

C. Provide graphics that show the regional location of the proposed project and more detailed graphics that show the location of key project facilities, nearby residences (permanent and seasonal) and other sensitive resources areas such as parks.

D. Show the proposed alignment and the construction corridor of the transmission line on a map with a scale sufficient to locate the alignment in the field.

E. Show the proposed operation and maintenance corridor for each of the project facilities on the same scale map as provided for Criterion D.

WAC 463-42-145 Proposal – Construction on site. *The applicant shall describe the characteristics of the construction to occur at the proposed site including the type, size, and cost of the facility; description of major components and such information as will acquaint the council with the significant features of the proposed project.*

NOTE: The alternatives section (463-42-645) requests that this information be provided separately for the two outer ranges of project configurations proposed: a large number of small turbines, and a small number of large turbines. A mid-sized option may also be provided.

A. Tower String Arrangement – provide a written description of the project layout, and provide plan view drawings, and project elevations drawings. Provide a drawing comparing the elevation of the turbines (all project configurations) with typical elevated facilities near the site (BPA transmission facility for example), or an average height residence.

B. Project Configuration and Performance – identify primary components and their subsystems and a summary narrative description of the operation of the project.

C. Describe the units to be used, provide performance data (e.g., operating hours, MW output), and identify the key subsystems. Describe the latest state-of-the-art machines.

D. Electrical Interconnection – describe the system to transmit power from the site and provide drawings and maps showing transmission line routes and substations or switchyards and who would build and own them. Show size and locations of any proposed switchyards or substations.

E. Capital Costs – provide the total capital cost for the project with specific entries for such items as major components, land, contingency, engineering, construction, and regulatory process.

F. Describe and provide plan and elevation view drawings for all buildings to be constructed for the project and of a typical tower, including foundation.

G. Describe site preparation activities, cuts and fills required, spoils management, final site contours. Also describe the purpose, type, and approximate quantity of any filling or grading proposed. Indicate the source(s) of fill material and restoration plans if new borrow pits are proposed.

H. Describe the temporary and permanent access roads to be used or developed for the plant site including required regulatory or other required design standards. Indicate the extent of upgrading of existing roads and the construction of new roads, if any, including construction methods.

I. Describe the size, type, and purpose of storage tanks to be developed on the plant site, if any. Provide design criteria for the tanks, including control and safety features.

J. Describe the location and size of temporary lay-down, staging, and parking areas to be used during construction.

K. Describe the type, quantity, and purpose of any hazardous materials to be used, stored, and/or generated on site, both for construction and operation, and provide information on control and safety features.

L. Describe the transportation systems, modes, and routes to be used to transport materials, equipment, and facility components to the site. Include railways, roads, air, and waterways, as applicable, and discuss any new facilities required.

M. Describe the size and types of construction related portable equipment to be used (rock crushers and concrete batch plant(s)).

N. Provide a description of quarry (borrow pit) locations and sizes and describe rehabilitation activities, as well as rehabilitation of the rock crusher and portable batch plant sites after use has ended.

O. Show proposed locations of laydown areas, construction parking, and any facilities used to support construction.

WAC 463-42-155 Proposal – Energy transmission systems. *The applicant shall discuss the criteria utilized as well as describe the routing, the conceptual design, and the construction schedule for all facilities identified in RCW 80.50.020 (6) and (7) which are proposed to be constructed.*

A. Provide detailed maps that show the construction and operational corridors of transmission lines associated with the project. Include the locations of access roads, laydown areas, and culverts that may be required for transmission lines.

B. Provide graphics that illustrate the design and dimensions of the transmission line towers.

C. Describe the proposed transmission line system including length, width of construction corridor, capacity, tower design and dimensions, materials used for tower construction, construction schedule and workforce.

D. Identify any unique construction techniques required for construction of the transmission line system.

E. Identify how materials will be brought to the construction sites.

F. Describe the temporary and permanent access roads to be used or developed for access to the transmission corridor including required regulatory or other required design standards. Indicate the extent of upgrading of existing roads and the construction of new roads, if any, including construction methods. Show all proposed access road stream or drainage crossings.

G. Describe the location and size of temporary lay-down, staging, and parking areas to be used during construction of the transmission line.

WAC 463-42-165 Proposal – Water supply system. *The applicant shall describe the location and type of water intakes and associated facilities.*

A. Identify and describe the location, source, and conveyance system for water

B. Identify the peak and average use rates in gallons per minute.

C. Describe the applicable water rights.

D. Describe water quality of the source.

E. Describe the water treatment requirements and methods.

F. Describe the source location, volumes and system for water delivery to the site during construction and the amounts needed.

WAC 463-42-175 Proposal – System of heat dissipation. *The applicant shall describe both the proposed and alternative systems for heat dissipation from the proposed facilities.*

Not applicable.

WAC 463-42-185 Proposal – Characteristics of aquatic discharge systems. *Where discharges into a watercourse are involved, the applicant shall identify outfall configurations and show proposed locations.*

Not applicable.

WAC 463-42-195 Proposal - Wastewater treatment. *The applicant shall describe each wastewater source associated with the facility and for each source, the applicability of all known, available, and reasonable methods of wastewater control and treatment to ensure it meets current waste discharge and water quality regulations. Where wastewater control involves collection and retention for recycling and/or resource recovery, the applicant shall show in detail the methods selected, including at least the following information: Waste source(s), average and maximum daily amounts and composition of wastes, storage capacity and duration, and any bypass or overflow facilities to the wastewater treatment system(s) or the receiving waters. Where wastewaters are discharged into receiving waters, the applicant shall provide a detailed description of the proposed treatment system(s), including appropriate flow diagrams and tables showing the sources of all tributary waste streams, their average and maximum daily amounts and composition, individual treatment units and their design criteria, major piping (including all bypasses), and average and maximum daily amounts and composition of effluent(s).*

A. Provide a summary description of project wastewater streams, treatment, and discharge during construction and operation.

B. Include information on discharge location, drainfield size and design, and anticipated infiltration and evaporation rates.

C. If wastewater is to be used or recycled for plant operations, describe the basic uses and volumes and, if appropriate, treatments.

WAC 463-42-205 Proposal - Spillage prevention and control. *The applicant shall describe all spillage prevention and control measures to be employed regarding accidental and/or unauthorized discharges or emissions, relating such information to specific facilities, including but not limited to locations, amounts, storage duration, mode of handling, and transport.*

A. Discuss how the Spill Prevention and Control Plan will address, at a minimum, the measures listed in WAC 463-42-205 for construction, operation, and maintenance activities associated with the:

1. Generation facilities (including the O&M facility)

2. Access road(s)

3. Transmission facilities and substations

4. Temporary/Portable equipment

While the final plan cannot be prepared until the final design of the facility components are complete, the plan that is included in the ASC should be as complete as possible and provide enough information for the Council to make an informed decision on its probable adequacy. The final plan should be completed and submitted to the Washington Energy Facility Site Evaluation Council (EFSEC).

B. Provide information regarding spill containment design and criteria used in developing the design for the facilities list under Section A above for construction, operation, and maintenance.

C. Describe, in particular, whether there are risks in driving fuel trucks along gravel roads with steep slopes, whether another equipment fueling plan is anticipated, or what type of response plan and equipment is envisioned to respond to a fuel tanker accident.

WAC 463-42-215 Proposal – Surface-water runoff. *The applicant shall describe how surface-water runoff and erosion are to be controlled during construction and operation to assure compliance with state water quality standards.*

A. Describe the SWPPP design for construction and operation to meet Eastern Washington stormwater management requirements (The Western WA stormwater management manual may be used with adjustments for Eastern WA).

B. Identify likely areas for surface runoff control facilities, if needed..

WAC 463-42-225 Proposal – Emission control. *The applicant shall demonstrate that the highest and best practicable treatment for control of emissions will be utilized in facility construction and operation. In the case of fossil fuel power plants and petroleum refineries, the applicant should deal with products containing sulphur, NO_x, volatile organics, CO, CO_2, aldehydes, particulates, and any other emissions subject to regulation by local, state, or federal agencies. In the case of a nuclear-fueled plant, the applicant should deal with optional plant designs as these may relate to gaseous emissions.*

A. Explain plans for dust suppression during construction and operation of both the project site and the transmission corridor.

B. Explain plans for dust suppression during operation of the quarries, rock crushers and concrete batch plant. Identify whether any blasting activities will occur during development/operation of the quarries.

C. Explain plans for dust suppression during quarry rehabilitation activities.

D. Fill out and append the Ecology Air Quality Permit Application Form for the Temporary/Portable equipment to be used. Include best estimates for size and type of equipment to be used and throughput.

E. Indicate expected length of time Temporary/Portable equipment would be on site, and maximum hours of use per day, and per year.

WAC 463-42-235 Proposal – Construction and operation activities. *The applicant shall: Provide the proposed construction schedule, identify the major milestones, and describe activity*

levels versus time in terms of craft and noncraft employment; and describe the proposed operational employment levels.

A. At a minimum, include the following schedules for the towers, buildings, roads, and transmission lines, mitigation sites and quarries/borrow pits:

   1. Design
   2. Site Preparation
   3. Construction
   4. Major Component Delivery
   5. Start-Up Testing
   6. Commercial Operation
   7. Site Rehabilitation
   8. Post construction monitoring
   9. Portable/Temporary equipment used on-site.

B. For the construction workforce, provide the average composition by skill and indicate by month the anticipated peak workforce.

C. Estimate where the construction workforce will originate, where they will be housed, how they will travel to the site, and where they will park their vehicles.

D. Define the normal working hours and number of shifts planned for construction. If more than one shift is anticipated, indicate how the daily workforce would be divided between the shifts.

E. Provide the construction costs, including anticipated average wages for workers.

F. Describe the anticipated facility operating schedule.

G. Provide the normal daily staff numbers by shift for operation. Also, describe how these numbers will increase for routine maintenance as well as for emergency repairs.

H. Provide the frequency and duration of shutdown for normal maintenance.

I. Provide a summary of local revenues that would accrue due to project expenditures and taxes. Describe how the choice of turbine size and technology would affect construction schedule.

WAC 463-42-255 Proposal – Construction methodology. *The applicant shall describe in detail the construction procedures, including major equipment, proposed for any construction activity within watercourses, wetlands and other sensitive areas.*

A. Provide a brief description of existing conditions and include current use, general topography with slope noted, and soils onsite for watercourses, wetlands, or other sensitive areas proposed for construction.

B. Describe the general and specialized construction approaches to be used at these sites, including the following:

1. Site preparation, including any rerouting of water (or dewatering), vegetation removal, topsoil stockpiling, use of any structural fill and source.

2. Borrow pit construction and operation, including any blasting activities that may be required. Indicate expected time of year that blasting activities would occur.

3. Runoff and erosion control plans.

C. Describe the general and specialized construction approaches, as appropriate, for the following:

1. Identify construction methods, restrictions for setbacks, temporary equipment bridges, spoils placement, alignment modifications, grubbing limits, and restoration techniques.

2. Describe any trench protection, if appropriate, such as shoring and bracing.

3. Describe the footings or other foundation structures for the turbines and transmission lines, including at a minimum, dimensions, depths of installation, and width of the construction corridor.

4. Describe location of fill and disposal materials.

5. Describe procedure of removing and replacing topsoil.

6. If appropriate, describe special physical site conditions that may cause construction constraints and/or require special construction techniques.

7. Describe mitigation measures with limits on construction activities and installation of temporary erosion and sedimentation control (TESC) structures.

8. Describe Best Management Practices (BMPs) used during and after construction.

9. Provide conceptual design drawings of foundation locations for towers (plan view and cross-section) and for erosion control structures.

10. Describe and provide drawings for any watercourse crossings or wetland area impacts.

11. Describe any blasting activities that may be required for construction or operation of any of the facilities.

D. Describe construction equipment to be used, including portable/temporary equipment (rock crushers and concrete batch plant).

E. Describe how the temporary laydown areas, including those associated with the transmission lines, will be returned to their pre-construction state.

F. Show how borrow pit development will meet Ecology's general permit for sand and gravel operations, including portable facilities and rock crushers, if applicable.

WAC 463-42-265 Proposal – Protection from natural hazards. *The applicant shall describe the means employed for protection of the facility from earthquakes, volcanic eruption, flood, tsunami, storms, avalanche or landslides, and other major natural disruptive occurrences.*

A. Present a summary of the more detailed natural hazard protection information used to determine design standards.

B. Identify protection measures of all facility structures from natural and human caused range fires.

WAC 463-42-275 Proposal – Security concerns. *The applicant shall describe the means employed for protection of the facility from sabotage, vandalism and other security threats.*

A. Describe the features of the project (construction and operation) designed to provide protection, including lighting, fencing, alarms, security personnel and patrols, cameras, and other planned features.

B. Provide emergency response plans for security-related events.

C. Describe how the applicant will coordinate with local law enforcement forces if assistance is required. Provide letters of agreement, if support agreements are established.

WAC 463-42-295 Proposal – Potential for future activities at site. *The applicant shall describe the potential for any future additions, expansions, or further activities which might be undertaken by the applicant on or contiguous to the proposed site.*

A. Discuss Wind Ridge's plans for phasing, potential expansions, additions, or changes on the property. Discuss the possibility of upgrading to larger towers in the future. Discuss the potential for facilities to be developed adjacent to the site.

WAC 463-42-085 General – Mitigation measures. *The application shall describe the means to be utilized to minimize or mitigate possible adverse impacts on the physical or human environments.*

A. Provide a summary list of steps to be taken to minimize or mitigate impacts, other than those required by regulation.

B. Describe whether there will be a fenced area and how much land (acreage) will be fenced to keep cattle out and the impacts of such fencing on use of the site by other wildlife.

C. Describe whether cattle grazing leases will be renewed and the effect of non-renewal of such leases on owners of affected herds, the size of affected herds, and the dates that leases are due to expire.

D. Describe any proposed mitigation related to habitat recovery other than fencing.

E. Describe whether recreational uses of the property will be limited and the benefits to habitat and wildlife that might occur from such limitation and the impacts to recreation (hunting, biking, hiking, horseback riding, camping, etc.).

SEPA Requirements

A. Describe how the proposal meets the definition of and requirement for the purpose and need for the project. Demonstrate how the project meets the public interest.

B. Provide additional mitigation being offered beyond that inherent in the project design to mitigate impacts.

Other Requirements

Not applicable.

Project Location

Project Facilities - Site Arrangement

Construction Activities

Operation and Maintenance

Schedule and Workforce

Costs

Mitigation Measures Inherent in the Project Design

Alternatives

Proposed Action Alternative

WAC Requirements

WAC 463-42-645 Analysis of alternatives. *The applicant shall provide an analysis of alternatives for site, route, and other major elements of the proposal.*

A. Because the applicant is proposing a range of potential wind turbine designs and sizes, the EIS will need to evaluate a range of alternative project configurations. The eventual project would fall within the range of configurations discussed within the EIS or, potentially, a new SEPA process might be required. The range of configurations selected for this EIS is construction of small turbines (125) and large turbines (83). These two configurations are discussed and compared in the EIS. To accomplish this, the applicant needs to provide information for each element of the environment that would be affected by project size and number of towers, and provide such information for 125 towers and 83 towers. Sample information **included, but not limited to**, might compare:

1. Visual impacts
2. Borrow pit needs
3. Bird strikes
4. Access road length
5. Power output
6. Assessed value
7. Vegetation loss
8. Mitigation
9. Wildlife impacts
10. Noise
11. Socioeconomics & Public Services
12. Capital and Operation Costs
13. Transportation

Summarize this comparison in a table.

B. Describe alternatives that have been considered to accomplish the purpose and need of the proposed project. Describe alternative routes for the transmission lines, roads, and other alignments. Address alternative locations for the quarries/borrow pits.

C. For alternatives initially considered but eliminated from further study, describe all aspects of the project alternatives, for both construction and operation (e.g. turbine size and type, size and location of borrow pits, transmission corridors, location and extent of turbine strings, location of access roads), and explain the reasons for their elimination. Include in this discussion off-site locations as well as on-site configurations that were considered, but rejected.

D. Describe design alternatives to the proposed project that have been considered and compare the potential impacts of these design alternatives to those of the proposed project.

E. Provide the information requested under Section 2.2, Description of the proposed project, WAC 463-42-145 Proposal – Construction on site, for the smallest and largest potential project configurations.

SEPA Requirements

A. If the exact configuration of the proposed project is not decided upon at time of submittal of the application, include sufficient information to evaluate the potential range of alternative configurations. Provide a full comparison of the proposed project using large tower configurations (83 towers) compared to the proposed project using small tower configurations (125 towers).

B. Provide a discussion of "reasonable alternatives" as required by WAC 197-11-440 (5) (d).

Other Requirements

Not applicable.

No Action Alternative

WAC Requirements

Not applicable.

SEPA Requirements

A. Briefly describe conditions if the project were not to go forward.

B. In response to WAC 197-11-440(5)(c)(vii), which addresses SEPA requirements for alternatives, describe the benefits and disadvantages of reserving the implementation of

the proposal for some future time, as compared with possible approval and implementation at this time.

Other Requirements

Not applicable.

Benefits or Disadvantages of Reserving Project Approval for a Later Date

WAC Requirements

Not applicable.

SEPA Requirements

A. In response to WAC 197-11-440(5)(c)(vii), which addresses SEPA requirements for alternatives, describe the benefits and disadvantages of reserving the implementation of the proposal for some future time, as compared with possible approval and implementation at this time.

Other Requirements

A. If the applicant is considering a request for a Site Certification Agreement (SCA) without defining specific wind turbine designs and heights until some time in the future, describe how you would plan to involve EFSEC in the final selection process. This discussion should explicitly indicate what other decisions/approvals will also be made/required once a size of turbine is selected, for example the final placement of the turbines in the pre-studied corridors.

Regulations and Permits

WAC 463-42-685 Pertinent federal, state and local requirements.

(1) Each application submitted to the council for site certification shall include a list of all applicable federal, state, and local codes, ordinances, statutes, rules, regulations and permits that would apply to the project if it were not under council jurisdiction. For each listed code, ordinance, statute, rule, regulation and permit, the applicant shall describe how the project would comply or fail to comply with each requirement. If the proposed project does not comply with a specific requirement, the applicant shall discuss why such compliance should be excused.

A. For each applicable federal requirement, describe how the requirement will be met, and indicate how the lead federal agency, if there will be one under National Environmental Policy Act (NEPA), intends to meet the coordination and consultation requirements under such laws as Section 106 of the Historic Preservation Act, the U.S. Fish and Wildlife

Coordination Act, Endangered Species Act, and any relevant Presidential Executive Orders, such as Wetlands, Environmental Justice, and the Children's Initiative.

B. Describe any land use approvals or land use changes associated with the proposed locations of project facilities which occurred prior to submittal of the ASC or before issuance of the SCA. This could include annexation, approval of conditional uses, rezones, and similar actions.

C. Show how you will meet the equivalent of the Department of Natural Resources (DNR) lease requirements and DNR and Ecology borrow pit permit requirements and Kittitas County (County) wastewater disposal requirements.

(2) Inadvertent failure to discover a pertinent provision after a reasonable search shall not invalidate the application, but may delay processing the application as necessary to gather and consider relevant information.

Not applicable.

Coordination and Consultation with Agencies, Indian Tribes, the Public, and Non-government Organizations

A. Describe the communications and interactions Wind Ridge has had with the public, agencies, Tribes, and non-governmental organizations.

B. Provide copies of relevant written responses resulting from the activities described in Criterion A.

Existing Conditions, Impacts, and Mitigation Measures

Earth

WAC Requirements

WAC 463-42-265 Proposal – Protection from natural hazards. *The applicant shall describe the means employed for protection of the facility from earthquakes, volcanic eruption, flood, tsunami, storms, avalanche or landslides, and other major natural disruptive occurrences.*

A. Provide a description of natural hazards that could impact safety and/or operation of the wind energy facility. Describe measures that would be implemented as part of the design to protect the facility from natural hazards. Provide documentation of why other geologic hazards do not pose a concern for the safety and operation of the facility.

B. Provide a description of the tectonic setting and historical seismicity of the Pacific Northwest, with emphasis on the Columbia Plateau region. Identify any Quaternary and Holocene faults in the region, and address these and other potential seismic sources that could result in ground shaking at the facility.

C. Provide a seismotectonic map of the region, showing tectonic elements. A 50-mile radius of the site should cover any seismotectonic features that could be relevant to the site,

although the area covered should be selected based on the results of this evaluation. This map could be combined with the geological map of the area.

D. Provide estimated ground accelerations for the project site and facility based on available data. Describe and evaluate the categories of seismic hazards that could result from ground shaking, such as liquefaction and landsliding. Describe the geotechnical evaluation that will be completed to develop the final seismic design input for the facility, including the tower and the blade system.

E. Identify the uniform building code (UBC) seismic zone(s) corresponding to the project site and vicinity.

F. Provide a description of volcanic hazards such as ash fall that could affect facility construction and operation.

G. Evaluate slope stability with respect to the locations of the turbine towers and transmission lines, if they are placed on or in proximity to any slopes underlain by unconsolidated materials or known areas of sliding rock or soil. Show identified landslide areas on a map of the proposed facility site. Provide a discussion of any impacts and planned design measures or potential mitigation measures related to landslide hazards, including the potential for a major landslide in canyons adjacent to the facility.

H. Describe storm hazards, including site-specific information on the magnitude of storm events and specific measures that would be employed to protect the facility against storms.

WAC 463-42-302 Natural Environment – Earth. *The applicant shall provide detailed descriptions of the existing environment, project impacts, and mitigation measures for the following:*

(1) Geology *– The applicant shall include the results of a comprehensive geologic survey showing conditions at the site, the nature of foundation materials, and potential seismic activities.*

A. Describe the geologic conditions in the vicinity of the facility site. Include a geologic map showing geologic formations, structural and tectonic features in the site vicinity.

B. Provide site-specific information on the surface and subsurface geology at the facility and at the borrow source(s).

C. Discuss whether the site is likely to contain petrified resources similar to Gingko State Park. Discuss whether the site is likely to contain other mineral resources collected by the public.

D. Tabulate the historical earthquakes, their magnitudes or epicentral intensities, distance from the site, felt intensity at the site, and other pertinent information sufficient to allow an independent assessment of the historical seismicity.

(2) Soils *– The applicant shall describe all procedures to be utilized to minimize erosion and other adverse consequences during removal of vegetation, excavation of borrow pits,*

foundations and trenches, disposal of surplus materials, and construction of earth fills. The location of such activities shall be described and quantities of material shall be indicated.

A. Describe the pedogenic soil types and assemblages that are developed in the vicinity of the facility site and provide a large-scale map of these soils (from U.S. Soil Conservation Service county maps).

B. Describe the susceptibility of soils associated with the facility and site to erosion from both wind and surface water runoff, and describe specific mitigation measures that are proposed to minimize erosion during construction and operation of the facility. Include a detailed description of procedures that are proposed to control erosion and sedimentation during construction of the facility.

C. Describe the methods that would be used for foundation preparation and filling, the potential impacts from these activities, and the planned design measures to avoid or minimize impacts.

D. Identify and describe the on-site borrow source(s) that would be used for the facility fill and for trench backfill, including the location of borrow pits, the types of soils and rock that will be used, and the volume of borrow material. Also describe any impacts (and appropriate design features to mitigate impacts) such as blasting that might result from extraction of the borrow material(s) required for this project. Include the area and depth to be disturbed for each borrow source.

E. Identify any off-site sources of borrow and concrete that will be used for project construction.

F. Provide a summary of the volumes of soil and rock to be excavated and disposed of from tower foundations. Also quantify the source and volume of fill or to be used for turbine foundations, turbine pads, access roads, maintenance facilities and other improvements. Include an estimate of volumes of soil and rock to be imported to and exported from the site.

G. Provide a summary of estimated depths of cut and fill for project facilities.

H. Describe the criteria and methods that would be implemented for trench backfill, including gradation, drainage, moisture-conditioning, compaction and wet weather work. Describe the potential requirements for, and sources of, imported fill materials, including estimated volumes, specific sites, and methods to stabilize the piles of excavated materials. This discussion should include plans for use of moisture-sensitive soils, where applicable.

I. Provide an assessment of the potential for encountering contaminated soils in excavations. Include a proposed approach for identification of contaminated soils, and for erosion control and disposal of contaminated soils that would be excavated.

J. Fill out and include in the application SM8A (surface mining) and an SM6 forms for each quarry site that is being proposed (DNR 2000).

(3) Topography *– The applicant shall include contour maps showing the original topography and any changes likely to occur as a result of energy facility construction and related activities. Contour maps showing proposed shoreline or channel changes shall also be furnished.*

A. Provide a brief description of the geographic setting and topography of the proposed facility, transmission line corridors, and vicinity.

B. Provide relatively large-scale topographic maps (1:24,000 or larger) of the facility. Enlargements may be necessary to portray areas where topographic or drainage changes would be required.

C. Provide a detailed grade-and-fill plan of sufficient detail to show existing topographic contours and proposed final grades for the facility.

D. Describe in detail the topographic modifications (including access roads and transmission line access roads) that would be required for construction of the facility and transmission lines, with particular emphasis on modifications to drainage patterns.

E. In addition to Criterion D under Item (2) of this WAC section, describe any topographic changes that would result from excavation of borrow materials, and any resultant impacts and measures proposed to mitigate impacts.

(4) Unique physical features *– The applicant shall list any unusual or unique geologic or physical features in the project area or areas potentially affected by the project.*

A. Identify if any unique features exist on the project site or the transmission corridor. Describe if any unique features are impacted on the project site or the transmission corridor, and if yes, how such impacts would be mitigated.

B. Discuss any other unique physical features such as fossil bearing geologic formations (if present) in the vicinity of the facility. Provide a similar evaluation of potential borrow area(s).

C. Describe measures that would be implemented to mitigate or avoid disruption to unique physical features (in addition to the requirements of Criterion B above), if present. This should include a discussion of how and where construction activities would be staged in the vicinity of such features.

(5) Erosion/Enlargement of the land area (accretion) *– The applicant shall identify any potential for erosion, deposition, or change of any land surface, shoreline, beach, or submarine area due to construction activities, placement of permanent or temporary structures, or changes in drainage resulting from construction or placement of facilities associated with construction or operation of the proposed energy project.*

A. Describe specific design measures that would be implemented to minimize or control erosion during construction and operation of the facility. This discussion should address the impact of reduced soil permeability in construction areas.

B. Describe specific design measures that would be implemented to minimize or control erosion during any trenching. This discussion should indicate what would be done with excess spoils from trench excavation.

Existing Conditions

Impacts of the Proposed Action

Impacts of Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Air Quality

WAC Requirements

WAC 463-42-225 Proposal – Emission control. *The applicant shall demonstrate that the highest and best practicable treatment for control of emissions will be utilized in facility construction and operation. In the case of fossil fuel power plants and petroleum refineries, the applicant shall deal with products containing sulfur, NOx, volatile organics, CO, CO2, aldehydes, particulates, and any other emissions subject to regulation by local, state, or federal agencies. In the case of a nuclear-fueled plant, the applicant should deal with the optional plant designs as these may relate to gaseous emissions.*

A. Quantify the construction and operational activities that could produce fugitive dust:
   1. Describe length, width, and type of construction for haul roads.
   2. Provide ranges for approximate number of each major category of diesel-powered construction equipment.
   3. Estimate peak-daily earthmoving quantities during construction.
   4. Estimate peak-daily production from on-site quarries and concrete batch plant.

B. Describe emission control methods to reduce fugitive dust during construction and operation, focusing on maximum daily construction operations during the dry season.

C. Describe proposed PM10 emission controls for stationary processing equipment (e.g., rock crushers, conveyors, concrete batch plant). Estimate maximum daily controlled emissions.

D. Estimate controlled peak-daily fugitive dust emissions after implementation of fugitive dust mitigation measures.

WAC 463-42-312 Natural environment – Air. *The applicant shall provide detailed descriptions of the affected environment, project impacts, and mitigation measures for the following:*

(1) Air quality *– The applicant shall identify all pertinent air pollution control standards. The application shall contain adequate data showing air quality and meteorological conditions at the*

site. Meteorological data shall include, at least, adequate information about wind direction patterns, air stability, wind velocity patterns, precipitation, humidity and temperature. The applicant shall describe the means to be utilized to assure compliance with applicable local, state, and federal air quality and emission standards.

A. Describe air quality regulations applicable to fugitive dust emissions during construction and operation. Describe regulatory requirements for stationary equipment.

B. Summarize meteorological conditions and wind data that would affect fugitive dust emissions and PM10 impacts at the nearest facility boundary on a typical day during the dry season.

C. Describe methods to be used to ensure fugitive dust emissions during construction and operation comply with the Washington Department of Ecology (Ecology) air quality regulations for Best Available Control Technology (BACT) and ambient air quality standards.

D. Describe the current air quality status of the air shed.

E. Provide general meteorological data for the site as a whole, including information about wind direction patterns, air stability, wind velocity patterns, precipitation, humidity and temperature

***(2) Odor** – The applicant shall describe for the area affected, all odors caused by construction or operation of the facility; and shall describe how these are to be minimized or eliminated.*

No comment, other than the data provided in Item (1) Air Quality.

***(3) Climate** – The applicant shall describe the extent to which facility operations may cause visible plumes, fogging, misting, icing, or impairment of visibility, and changes in ambient levels cause by all emitted pollutants.*

Not applicable.

***(4) Dust** – The applicant shall describe for any area affected, all dust sources created by construction or operation of the facility, and shall describe how these are to be minimized or eliminated.*

See Item (1) Air Quality.

SEPA Requirements

A. Briefly describe mitigation measures to prevent generation of visible dust plumes during construction and operation.

Other Requirements

None.

Existing Conditions

Impacts of the Proposed Action

Impacts of Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Water Resources

WAC Requirements

WAC 463-42-215 Proposal – Surface-water runoff. *The applicant shall describe how surface-water runoff and erosion are to be controlled during construction and operation to assure compliance with state water quality standards.*

A. Discuss and show how stormwater will be detained, controlled, and treated during facility construction and operation, in particular for the Operations and Maintenance (O&M) facility and substation sites (i.e. provide design plans). Define the storm event used in the design for erosion control measures and stormwater treatment.

B. Provide an evaluation of stormwater runoff volume, quantity, and quality during construction and operation of the facility, especially for the O&M facility, substation sites (i.e., any paved areas), borrow pits and associated temporary/portable equipment (rock crushers and concrete batch plant). Include quantities of impervious surfaces.

C. Describe potential pollutants associated with the construction and operation of the proposed facility that could affect surface waters (i.e., sediment from water truck spraying or roads). Describe pollutant types and potential effects and discuss BMPs, spill response, spill containment, and spill prevention measures.

D. Describe how stormwater runoff will be controlled during construction of buried and overhead transmission lines including how long trenches and footings are expected to be exposed or in a disturbed state. . Describe the area required for construction and operation of towers and footings. Be sure Stormwater Pollution and Prevention Plan (SWPPP) covers transmission lines.

WAC 463-42-322 Natural environment – Water. *The applicant shall provide detailed descriptions of the affected natural water environment, project impacts and mitigation measures and shall demonstrate that facility construction and/or operational discharges will be compatible with and meet state water quality standards. The applicant shall indicate the source and the amount of water required during construction and operation of the plant and show that it is available for this use and describe all existing water rights, withdrawal authorizations, or restrictions which relate to the proposed source.*

(1) Surface water movement/quality/quantity *– The application shall set forth all background water quality data pertinent to the site, and hydrographic study data and analysis of the*

receiving waters within one-half mile of any proposed discharge location with regard to: Bottom configuration; minimum, average, and maximum water depths and velocities; water temperature and salinity profiles; anticipated effluent distribution and dilution, and plume characteristics under all discharge conditions; and other relevant characteristics which could influence the impact of any wastes discharged thereto.

A. Discuss proximity of project components to seeps/springs, drainages, and canals and discuss potential impacts. Include the nature of the activities that would cause impacts. Include setbacks or mitigation which would offset impacts.

B. Describe and discuss all drainage or canal crossings associated with the project, including construction methods, risks, setbacks, potential disturbance to drainages, and a description of control measures that would be used during construction and operation to minimize runoff and disturbance. Justify and discuss impacts and mitigation measures for any tower footings, or access roads or trails that may be placed in or near drainages or wetlands.

C. Provide assurances that the proposed well will not affect local springs and drainages. Document the depth of proposed well, the depth of groundwater supplying the local springs and drainages, their associated aquifers, and their lack of connection. Provide information showing that the well will not have a direct effect on groundwater quantity, quality, and flow direction os state that it is unknown if that is the case.. Provide a summary description of the project's water supply system (including location of well and required infrastructure). If a pipeline is required to deliver water from the well, then impacts of the pipeline must be addressed for all appropriate WACs.

D. Describe the quantity and quality of storm water associated with the facility. Describe how storm water would be detained and controlled during facility construction and operation. Provide a construction National Pollutant Discharge Elimination System (NPDES) permit application, and as applicable a Sand and Gravel General NPDES application, including coverage for Portable Facilities. Discuss how the project meets or exceeds the control requirements of these general NPDES permits.

(2) Runoff/absorption *– The applicant shall describe how surface water runoff and erosion are to be controlled during construction and operation, how runoff can be reintroduced to the ground for retention to the ground water supply, and to assure compliance with state water quality standards.*

A. Discuss existing sediment load conditions and address potential and cumulative sediment impacts to drainages associated with the proposed facility. Include a description of control measures that would be used during construction and operation to minimize and/or treat runoff.

B. Discuss the potential for compaction to occur and potential affects of compaction on runoff/absorption.

(3) Floods *– The applicant shall describe potential for flooding, identify the five, fifty, one hundred, and five hundred year flood boundaries, and all protective measures to prevent possible flood damage to the site and facility.*

A. Provide maps (1:24,000 or larger scale) of the project areas showing the locations of the 5-, and 100 floodplains relative to project features.

B. Demonstrate that all aspects of the proposed project, including the proposed transmission lines and their tower footings and access roads, are outside of floodplains (i.e., floodplain maps clearly showing entire project is outside of floodplain). If project is not outside of floodplain, describe protective measures to be implemented to prevent flood damage to the site and to proposed facilities and transmission lines.

C. Document data and information sources used to identify floodplains and elevations (e.g., Federal Emergency Management Administration [FEMA] maps) if available.

(4) Ground water movement/quantity/quality *– The applicant shall include the results of a comprehensive hydrologic survey, describe the ground water conditions on and near the site and any changes in groundwater movement, quantity, or quality which might result from project construction or operation.*

A. Describe the hydrogeologic conditions within and near the site, including aquifer and hydraulic characteristics.

B. Document (i.e., list and locate) all springs and existing water wells in and near the site. Describe the relationship between surface water features such as springs and the hydrogeologic regime, if known.

C. Describe proposed uses of groundwater resources for the project during construction and operation, including maximum project needs and total annual volume withdrawn.

D. Describe impacts to the groundwater system, including changes in ground water movement, quantity and quality. If impacts to streams are unknown, state this in the application.

E. Demonstrate that water supply well(s) will be from deep aquifers that will not affect springs.

(5) Public water supplies *– The applicant shall provide a detailed description of any public water supplies which may be used or affected by the project during construction or operation of the facility.*

A. Identity the public water source(s) to be used for project construction and assess impacts on the public water supply(s) by the project consuming an estimated 2 million gallons for construction.

B. Document the steps that have been taken to secure the acceptance of the Ecology's concurrence that the new well is consistent with the projects water right.

C. Identify the aquifer(s) that will be used for the well, and document the aquifer capacity and what fraction of the aquifer the proposed well will use. Address potential impacts of the well on the aquifer and on other users /uses of the aquifer (if any).

SEPA Requirements

Not applicable.

Existing Conditions

Impacts of the Proposed Action

Impacts of Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Wetlands and Vegetation

WAC Requirements

WAC 463-42-332 Natural environment – Plants and animals.

(1) Habitat for and number or diversity of species of plants, fish, or other wildlife *– The applicant shall describe all habitat types, vegetation, wetlands, animal life, and aquatic life which might reasonably be affected by construction, operation, or cessation of construction or operation of the energy facility and any associated facilities. Assessment of these factors shall include density and distribution information. The application shall contain a full description of each measure to be taken by the applicant to protect all habitat types, vegetation, wetlands, animal life, and aquatic life from the effects of project construction, operation, abandonment, termination, or cessation of operations.*

A. Characterize vegetation communities within the project area and transmission line corridors based on both literature reviews and quantitative field analyses, using established protocols as per WDFW guidelines (August 2003), and report the findings in the ASC. Report findings proportional to the species affected and the surface disturbance planned.

B. Conduct appropriate delineations by a professional wetland biologist for any wetlands (seasonal wetlands or springs) or stream crossings that would be within or adjacent to any construction or operational activities at the project site or along transmission line corridors, using the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual (Environmental Laboratory 1987) and the 1997 Washington State Wetlands Identification and Delineation Manual (Ecology 1997).

C. If potentially affected wetlands are identified and delineated, prepare a Wetland and Stream Delineation Report that includes the following:

    1. Classify wetland habitat types based on the U.S. Fish and Wildlife Service wetland classification system (Cowardin et al. 1979). This classification scheme categorizes wetlands according to plant community types and hydrologic regime and is one of many factors commonly used by local jurisdictions to help determine wetland functions and values.

2. Rate wetlands and streams and determine their buffer widths through the guidelines in the appropriate local Critical Areas Ordinance (Kittitas County Code Title 17A) and Ecology's rating for Eastern Washington.

3. Prepare a functions and values assessment for each individual wetland. Evaluation methods should follow those outlined in Wetland and Buffer Functions Semi-Quantitative Performance Assessment Methodology (Cooke 1997) or other method acceptable to Ecology.

4. Present compliance with local, state, and federal regulations. Activities within wetlands and their associated buffers may trigger certain permit requirements:

   - Clean Water Act, Discharge of Dredge and Fill Material: Section 404 Permit – U.S. Army Corps of Engineers
   - Clean Water Act, Water Quality Certification: Section 401 Permit (EFSEC)
   - Federal Endangered Species Act: Section 7 – U.S. Fish and Wildlife Service, National Marine Fisheries Service
   - Application for General Discharge Stormwater Associated with Construction Activity (EFSEC)
   - Application for General Sand and Gravel Permit (including requirements for Portable Equipment)
   - Hydraulics Permit Application (HPA) for any stream crossings

5. Include the following in the ASC wetland section and provide scientific names for plants mentioned in the text.

   - Construction and operational impacts (permanent and temporary, as well as potential indirect effects) to wetlands by habitat type.
   - Describe any riparian corridor crossings.
   - Show on a map the locations of wetlands along turbine strings and transmission feeder line routes.
   - Provide drawings showing turbine strings or transmission line installation in areas immediately adjacent to wetlands and indicate if there will be temporary impacts to wetland buffers during construction.
   - Submit construction method drawings for any wetland crossings and describe construction method impacts, equipment to be used, and location of stockpiled soils.
   - Indicate how the proposed transmission line routes minimize impacts to wetlands.
   - Specify the setback of all earthmoving activities from wetlands, areas of native habitat, and riparian zones.

- Identify buffer widths based on applicable city, county, or Ecology requirements and present acreage of wetland buffer impacted (describe and quantify).
- Describe maintenance activities, including methods to maintain corridors for inspection, and permanent/temporary impacts.

D. Describe existing conditions at the locations of all project-related facilities and construction zones for all identified vegetation communities (include dominant species) and include definition, type, extent, and location of sensitive plant communities such as native shrub-steppe or grasslands, basalt outcrops, and riparian corridors.

E. Present both the total construction and operational impact acreages (permanent and temporary) for the project-related facilities by vegetation community. Describe the vegetation by cover type, quality*, and quantify the impacts by removal or trimming, and if the impacts to the plant communities are permanent or temporary (including whether the corridor associated with the transmission feeder line(s) will require the permanent removal of existing trees and shrubs for easement maintenance). If trees are removed, describe species, size, and number to be removed. [*WDFW has requested that when describing shrub steppe habitat, to define it's quality as excellent, good, fair, or poor.]

Vegetation impacts should be quantified including loss or disturbance from:

- Access road and trail creation
- Access road and trail widening
- Trenching for underground conductors
- Trenching for other utilities
- Building footprints
- Wind turbine tower foundations
- Transmission tower foundations
- Substation footprint and access road
- Switchyard footprint and access road
- Fencing
- Wells and outbuildings
- Parking lots
- Side cast piles from any trenching and earth moving
- Borrow pits
- Meteorological towers

F. If woody vegetation along the transmission feeder line corridor(s) is removed, address issue of potential changes in adjacent plant community type or the introduction of exotic or noxious weeds and the potential impact.

G. Provide measures (Plan) that would be used to prevent or minimize the introduction, spread, and establishment of noxious weeds during construction and operation. Contact the Kittitas County Noxious Weed Board for management criteria for District 9 concerns (e.g., musk thistle, Russian knapweed, Canada thistle, diffuse knapweed, and spotted knapweed).

H. Provide revegetation guidelines for areas that would be disturbed during construction and include guidelines for the use of native and if appropriate (e.g. erosion control), non-native (County approved) seed mixes.

(2) Unique species *– Any endangered species or noteworthy species or habitat shall receive special attention.*

A. Provide documentation of Endangered Species Act (ESA) compliance and coordination with U.S. Fish and Wildlife Service (USFWS). This would either be a record of concurrence with the finding that threatened or endangered plant or animal species would not be affected through informal consultation, or initiation of a Biological Assessment. Also provide a record of communications during consultation.

B. Contact USFWS and the Washington Natural Heritage Program (WNHP) for lists of federal and state sensitive species and any significant high-quality native plant communities and identify in ASC.

C. Determine the need to conduct rare and sensitive plant survey based on a review of USFWS, WNHP, and Priority Habitat and Species Program (PHS) (Washington Department of Fish and Wildlife) database listings for presence of sensitive plant species. Rare plant surveys should be conducted during the early spring, late spring and summer months. Describe the presence of any state-listed, candidate, or proposed species, and impacts, direct or potential indirect, to these species if present.

D. Provide an assessment of potential impacts to special-status plant species or priority habitats and provide a vegetation protection plan to mitigate any project-related impacts to special-status or priority habitats.

E. Identify noxious weed species within the project area. Verify with Kittitas County Noxious Weed Control Board (based on Washington State Noxious Weed Control Board plant lists) any management requirements for noxious weeds known to be present (e.g. musk thistle, Canada thistle, diffuse knapweed, and spotted knapweed) within the project area, including transmission line corridors. Provide a weed management plan for noxious weeds (See Criterion G for WAC 463-42-332(1).

F. State whether there are plans to harvest and recover any species before construction at sites scheduled for clearing and/or paving.

SEPA Requirements

None Required.

Other Requirements

See Criterion A for WAC 463-42-332(2).

A. Obtain from the Kittitas County Planning Department the existing inventory of critical areas on the project site including areas potentially affected by new transmission line construction. Describe any critical areas located within the proposed project area or potential transmission line corridors and describe the potential impacts to these areas. Include a description of measures that would be taken to avoid or minimize impacts to these areas and how these measures meet the requirements of Kittitas County Ordinance Title 17A.

Existing Conditions

Impacts of the Proposed Action

Impacts of Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Agricultural Crops and Livestock

WAC Requirements

WAC 463-42-362 Built environment – Land and shoreline use.

(7) Agricultural crops/animals *– The applicant shall identify all agricultural crops and animals which could be affected by construction and/or operation of the facility and any operations, discharges, or wastes which could impact the adjoining agricultural community.*

A. Provide a description of methods used to assess rangeland and a complete description of the existing conditions and impacts on rangeland and livestock due to project construction and normal operation.

B. Identify and describe agricultural activities in areas within and adjacent to the project.

C. Describe construction and/or operation activities that could affect rangeland, quantify total areas of impact, and indicate whether impacts are permanent or temporary. Discuss whether there will be reduced range productivity over time, including within transmission line corridors. Include measures that would be implemented to minimize or avoid impacts, including preventing the establishment or spread of noxious weeds on adjacent rangelands and agricultural areas.

D. Discuss how building and operating the facilities will affect the grazing of cattle and horses in the project area (i.e., where would displaced cattle be grazed during construction and after operation). Describe whether the site will be removed from available rangeland for cattle grazing.

E. It is possible that grazing leases will not be renewed. It is also possible that elk use of the site for winter grazing will be reduced if they are disturbed by operations. Discuss the likelihood of these two possibilities and their combined affect on adjacent grazing lands if both groups are displaced to the same areas.

SEPA Requirements

Not applicable.

Other Requirements

Not applicable.

Existing Conditions

Impacts of the Proposed Action

Impacts of Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Wildlife

WAC Requirements

WAC 463-42-332 Natural environment – Plants and animals.

(1) Habitat for and number or diversity of species of plants, fish, or other wildlife *– The applicant shall describe all habitat types, vegetation, wetlands, animal life, and aquatic life which might reasonably be affected by construction, operation, or cessation of construction or operation of the energy facility and any associated facilities. Assessment of these factors shall include density and distribution information. The application shall contain a full description of each measure to be taken by the applicant to protect all habitat types, vegetation, wetlands, animal life, and aquatic life from the effects of project construction, operation, abandonment, termination, or cessation of operations.*

A. Conduct an onsite field characterization of existing wildlife habitats, wildlife resources, and potential utilization of the project area and report the findings in the ASC. Include information from the baseline wildlife study: avian use surveys, raptor nest surveys, sage grouse surveys, and big game surveys. Describe how baseline studies conducted in association with the proposed project would meet the requirements of the WDFW guidelines (August 2003) for pre-project assessment.

B. Obtain PHS data for the project area from the Washington Department of Fish and Wildlife (WDFW) and report the findings in the ASC. Describe any impacts to priority habitats and/or species that may occur in association with the proposed project and any measures that would be taken to avoid or minimize these impacts. Include a description of historic sage grouse occurrence and use of the project area, current and potential future occurrence and use of the project area, and how this could be affected by the proposed project.

C. Also include a description of remaining large blocks of shrub-steppe habitat in the project area vicinity, the relation of these large blocks to those available in the project area, the extent to which the proposed project might lead to fragmentation of existing large blocks of shrub-steppe habitat, and any measures that would be taken to avoid or minimize this fragmentation.

D. Request a species list for the project area from the USFWS and report the findings in the ASC. Describe any affects to federally listed species or their habitats that may occur in association with the proposed project and any measures that would be taken to avoid or minimize these affects.

E. Document contacts with local biologists and the local Audubon Society for information on wildlife species utilizing the project area.

F. Provide an assessment of potential impacts to wildlife species and their habitat and migration routes and provide a wildlife protection plan to mitigate project-related impacts to wildlife and wildlife habitat. Include a description of the amounts and types of wildlife habitat that will be altered both permanently and temporarily, describe proposed mitigation, how proposed mitigation will compensate for habitat that is lost, how areas of temporary disturbance will be revegetated, and how noxious weeds will be prevented from establishing in the areas of soil disturbance. Include habitat impacts from project construction, road construction and improvement both within the project area boundary and outside of the boundary, and within areas proposed for new transmission line construction. Describe how the WDFW guidelines (August 2003) for minimization of wildlife impacts would be addressed and describe proposed habitat mitigation and how it would meet the WDFW guidelines.

G. Describe the potential for direct mortality to avian and bat species utilizing the site through collision with turbines, met towers, guy wires, and transmission lines and describe measures to be taken to minimize or avoid these impacts. Include a description of the type of turbines that would be expected to be constructed and any features associated with these turbines that would reduce the risk of avian and/or bat mortality.

H. Describe the relationship between the project area and the Colockum, Quilomene, and Whiskey Dick Wildlife Areas and describe potential affects to these areas from the

proposed action, potential affects to species for which these areas are managed, and the ability of species to move between these areas. Include potential impacts to seasonal movements of elk within the Colockum herd, impacts to habitat available to elk in the Colockum herd, and potential impacts to habitat on adjacent lands. Include information on how noxious weeds will be controlled on the project site and how the spread of noxious weeds from the project site to adjacent areas will be prevented.

I. Describe the expected changes in the amount and type of human activity in the project area, including during project construction and operations. Qualitatively describe the current use of roads in the area, the anticipated use of roads during both construction and operations, and potential impacts of this use on wildlife species occurring in the project area. Include information on the estimated number of vehicle trips per day, types of vehicles, duration of activity, and season of activity, how this differs from historic use and the potential for this to alter wildlife use of the site, particularly deer and elk utilization of the area and movement through the area.

J. Describe areas where blasting and rock crushing would occur during project construction, including blasting for road building, quarry development, foundation construction, and utility burial. Describe the expected timing and duration of blasting and rock-crushing activities and the potential for these activities to disturb wildlife.

K. Describe the topography of the project site and identify topographical features that may be utilized by raptors. Describe proposed turbine placement in relation to these features, potential impacts to raptors utilizing these features.

L. Provide a detailed monitoring plan for the proposed project and include a description of any adaptive management measures that would be employed if. Describe how the WDFW guidelines (August 2003) for operational monitoring would be addressed.

(2) Unique species *– Any endangered species or noteworthy species or habitat shall receive special attention.*

A. Review PHS data and USFWS letters for unique species and assess them accordingly. Provide information on the presence or absence of these species, and if present, the potential impacts of project-related facilities and any measures that would be implemented to avoid or minimize these affects.

(3) Fish or wildlife migration routes *– The applicant shall identify all fish or wildlife migration routes, which may be affected by the energy facility or by any discharge to the environment.*

A. Review Priority Habitat and Species data for migration routes and report on the findings, including a statement regarding potential impacts. Include a discussion of elk migration routes in the and around the project area and potential impacts to migration from project implementation.

B. Contact local biologists for information on wildlife species migrating through the project area and report on the findings, including a statement regarding potential impacts.

C. Assess the risk of migrating bats and birds colliding with project structures, including turbines, guy wires, met towers, and transmission lines. Discuss measures that would be taken to avoid or minimize these impacts.

SEPA Requirements

Not applicable.

Other Requirements

Endangered Species Act

A. If the Applicant decides to have the Bonneville Power Administration either purchase or wheel the power generated by the proposed project, evaluate potential effects of the project on listed species and document these affects in a Biological Assessment (BA). Dependent upon the affects determinations reached in the BA, consult with the USFWS and/or National Marine Fisheries Service (NOAA Fisheries) through BPA

B. If the Applicant decides to have Puget Sound Energy purchase or wheel the power, and **only** if there is a potential for take of a federally listed species, consider preparation of a Habitat Conservation Plan (HCP) as appropriate if listed species are present where project-related facilities are located. This criterion may be ignored if no take of listed species is expected.

Migratory Bird Treaty Act

A. Determine if the locations of project-related facilities provide either nesting or wintering habitat for migratory birds and if so, evaluate potential impacts to migratory birds from project implementation and describe measures that would be taken to avoid or minimize these impacts.

Bald Eagle Protection Act

A. Determine if the project area provides habitat for bald eagles and/or golden eagles and if so, evaluate potential impacts to these species from project implementation and describe measures that would be taken to avoid or minimize these impacts.

Kittitas County Ordinance Title 17A, Critical Areas, dated 3/99.

A. Obtain from the Kittitas county Planning Department the existing inventory of critical areas on the project site and including areas potentially affected by new transmission line construction. Describe any critical areas located within the proposed project area or potential transmission line corridors and describe the potential impacts to these areas. Include a description of measures that would be taken to avoid or minimize impacts to these areas and how these measures meet the requirements of Kittitas County Ordinance Title 17A.

Existing Conditions

Impacts of the Proposed Action

Impacts of Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Fisheries

WAC Requirements

WAC 463-42-332 Natural environment – Plants and animals.

(1) Habitat for and number or diversity of species of plants, fish, or other wildlife *– The applicant shall describe all habitat types, vegetation, wetlands, animal life, and aquatic life which might reasonably be affected by construction, operation, or cessation of construction or operation of the energy facility and any associated facilities. Assessment of these factors shall include density and distribution information. The application shall contain a full description of each measure to be taken by the applicant to protect all habitat types, vegetation, wetlands, animal life, and aquatic life from the effects of project construction, operation, abandonment, termination, or cessation of operations.*

A. Provide a description of the existing aquatic environment on the site (e.g., surface waters, drainages, canals, springs, riparian areas, and wetlands) and the proximity of facilities to those areas, including the two electrical transmission line alternatives and any roads. Detail basic drainage characteristics, especially whether it is perennial or seasonal. In particular, include details on Parke Creek, Whiskey Dick Creek, the Highline Canal, and any other canals or aquatic features associated with the proposed project, including the proposed transmission line corridors. Discuss potential fish use in creeks and canals, if any.

B. Provide a description of the drainages associated with the proposed Puget Sound Energy (PSE) and Bonneville Power Administration (BPA) transmission lines in a fisheries section.

C. Contact the local WDFW to discuss and document if they have any fisheries concerns over the project and demonstrate that the project addresses their concerns. Cite communications.

D. Describe any currently limiting conditions that affect fish species and address whether the proposed project and related facilities (e.g., transmission lines) will affect fish habitat or not.

E. Specify setbacks for all construction related activities (earth moving, refueling, stockpiling, etc.) to protect riparian areas, surface waters, drainages, canals, springs, and other sensitive areas.

F. Describe, in detail, drainage or canal crossings associated with roads, buried lines, and overhead lines. Include construction methods, risks, setbacks, BMPs, and disturbance to riparian areas, drainages, canals, springs, or surface waters.

G. Document and justify the potential effects (or lack of effects) on fisheries caused by the proposed facility's stormwater and wastewater.

H. Describe in detail the construction process for wind turbine and electrical transmission tower footings located near or in surface water and justify their placement at those sensitive locations. Include tower footing design drawings and footing locations. Discuss potential impacts to fisheries and measures to be implemented that would minimize potential impacts (i.e., BMPs).

(2) Unique species *– Any endangered species or noteworthy species or habitat shall receive special attention.*

A. Provide documentation of ESA compliance and coordination with USFWS and NOAA Fisheries. This would either be a record on concurrence with the finding that threatened and endangered species would not be affected (through informal consultation), or initiation of a Biological Assessment (BA) for the proposed project-related facilities. In addition, provide or document species list request submittals to NOAA Fisheries and USFWS and the results of the requests for the proposed project. Letters should briefly describe the project and project components and the location of the proposed facility. Location descriptions should include township, range, and section.

B. Review PHS data and agency response for unique species and assess them accordingly. Provide information on the presence or absence of the species, and if present, assess the potential impacts of project-related facilities on these species. If PHS data has been reviewed, document that.

(3) Fish or wildlife migration routes *– The applicant shall identify all fish or wildlife migration routes which may be affected by the energy facility or by any discharge to the environment.*

A. Specify setbacks for all construction related activities (earth moving, refueling, stockpiling, etc.) to protect migrating fish along power line corridors.

B. Show whether any new access roads or trails will cross streams or drainages close to streams, including both transmission corridor alternatives.

C. Discuss the nearest large mammal migration routes or avian corridors to the project site, including transmission lines.

SEPA Requirements

Not applicable.

Other Requirements

Endangered Species Act

A. Evaluate potential effects on listed species in a No Effect letter or BA and through consultation with the USFWS or NOAA Fisheries if or when the BPA line is proposed to serve the project. Obtain concurrency with "No Effect" or a Biological Opinion if determined to not be a "No Effect" determination.

Existing Conditions

Impacts of the Proposed Action

Impacts of Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Energy and Natural Resources

WAC Requirements

WAC 463-42-342 Natural environment – Energy and natural resources.

(1) Amount required/rate of use/efficiency *– The applicant shall describe the energy and natural resource consumption during both construction and operation of the proposed facilities as rate of use and efficiency that can be achieved during construction and operation.*

A. Provide the amount of electricity, diesel fuel, gasoline, sand and gravel to be consumed during construction.

B. Briefly discuss energy consumed during operation compared to energy generated.

(2) Source/availability *– The applicant shall describe the sources of supply, locations of use, types, amounts, and availability of energy or resources to be used or consumed during construction and operation of the facility.*

A. Describe the likely sources of refueling for construction and delivery vehicles (e.g., Kittitas).

B. Explain how the electricity will be routed into the transmission grid.

C. Describe the location of gravel borrow pits onsite.

(3) Nonrenewable resources *– The applicant shall describe all nonrenewable resources that will be used, made inaccessible or unusable by construction and operation of the facility*.

A. Describe all nonrenewable resources as outlined above if not addressed in (1). Such resources would include but are not necessarily limited to water, gravel used during construction, diesel fuel and oil for construction equipment, and loss of grazing land.

B. Describe where the water for the proposed project will come from, including the source of potable and dust control water during construction.

(4) Conservation and renewable resources *– The applicant shall describe conservation measures and/or renewable resources which will or could be used during construction and operation of the facility.*

A. Explain whether "gray water" from gravel operations or other sources would/could be reused to reduce the overall consumption of water.

SEPA Requirements

No additional requirements needed.

Other Requirements

Explain the relationship between this site and the Gingko petrified forest natural resources and likelihood that such resources would be affected by the project.

Existing Conditions

Impacts of the Proposed Action

Impacts of the Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Noise

WAC Requirements

WAC 463-42-352. Built environment - Environmental health.

(1) Noise *– The applicant shall describe the impact of noise from construction and operation and shall describe the measures to be taken in order to eliminate or lessen this impact.*

A. Identify the location of noise-sensitive receivers (NSRs), (i.e., homes) along with property boundaries on U.S. Geological Service (USGS) mapping (including topography). Identify all homes (permanent and seasonal) within 3 miles of the wind turbines. Indicate the approximate location of the wind turbine strings and wind turbines or other noise generation sources on the project site.

B. Using either literature values or onsite measurements, estimate baseline noise levels at NSRs for two conditions:

    1. Calm conditions

    2. Windy conditions typical of wind turbine operation

C. Identify and describe relevant state, and local noise standards and noise impact criteria. In the absence of local standards, standards specified in Washington Administrative Code Chapter 173-60 should be used. In addition, identify relevant non-regulatory environmental noise guidelines pertinent to installing a new industrial operation in a previously rural setting (for example, the Federal Transit Administration (FTA 1995) guidance. Identify which standards and guidelines will be applied to the project in assessing noise impacts.

D. Conduct a detailed assessment of noise impacts associated with construction and operation of the facility. Quantify noise levels expected from wind turbines in operation.

    1. Briefly describe noise emissions from typical construction equipment to be used.

    2. Identify and describe noise-generating elements of the facility. Describe frequency spectrum and a qualitative description of repetitive noise characteristics (whooshing), if any.

    3. Describe modeling methods and assumptions used to estimate upwind and downwind noise levels. Describe how increased noise levels downwind of sources were modeled.

4. Estimate operational noise levels around the facility, including all residential receiver locations. For key receivers, evaluate increase over background noise levels. Compare modeled noise levels to the impact criteria.

5. Where noise impacts are identified, describe mitigation measures required to eliminate noise impacts. If no feasible measures are available to eliminate noise impacts, clearly state the reasons for this.

SEPA Requirements

Not applicable.

Other Requirements

Not applicable.

Existing Conditions

Impacts of the Proposed Action

Impacts of Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Land Use

WAC 463-42-362 Built environment – Land and shoreline use.

(1) The relationship to existing land use plans and to estimated population *– As part of the application, the applicant shall furnish copies of adopted land use plans and zoning ordinances, including the latest land use regulation and a survey of present land uses within the following distances of the immediate site area:*

(a) In the case of thermal power plants, twenty-five miles radius;

Not applicable.

(b) In the case of petroleum refineries ten miles radius;

Not applicable.

(c) In the case of petroleum or LNG storage areas or underground natural gas storage, ten miles radius from center of storage area or well heads;

Not applicable.

(d) In the case of pipe lines and electrical transmission routes, one mile either side of center line.

A. Provide a description of land use patterns, land use plans, and zoning within one mile of the transmission line corridors, and within one mile of all turbine strings, and in general for Kittitas County. Provide both narrative and graphical depictions of these conditions.

B. Describe impacts the proposed project may have on surrounding land uses and identify potential mitigation measures. Include designations such as sensitive areas, shorelines, buffers, and other land use classifications.

C. Provide a copy of all applicable land-use plans and zoning ordinances within 1 mile of the transmission line corridors and within one mile of the turbine strings.

SEPA Requirements

Not applicable.

Other Requirements

A. The applicant will need to apply for a Wind Farm Resource Overlay Re-Zone to be consistent with Kittitas County Comprehensive Plan.

B. Describe the schedule and anticipated process to obtain a land-use consistency certificate from Kittitas County.

Existing Conditions

Impacts of the Proposed Action

Impacts of the Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Visual Resources/Light and Glare

WAC 463-42-362 Built environment – Land and shoreline use.

(3) Light and glare *– The applicant shall describe the impact of both daytime and nighttime light and glare from construction and operation and shall describe the measures to be taken in order to eliminate or lessen this impact.*

A. Provide description of the lighting to be used during the day and any impact this has on their visibility during daylight hours.

B. Provide a description of the navigational lighting to be used per Federal Aviation Administration (FAA) requirements (from local FAA Obstruction Hazard Analyst) for flight safety and an analysis of the impact of viewing the towers at night. Provide a photograph from an existing wind farm site to demonstrate the type of light and the backscatter or reflection it yields.

C. Describe and analyze any skyglow and back-scatter effects the lighting would have on the night sky.

D. Provide description of proposed finishes for all surfaces, potential for reflectivity, and response to weathering.

E. Provide reflectivity rating (as a percentage) of the blade coatings.

F. Describe any potential light or shadow flicker from blade rotation and its impacts on neighboring communities and transportation corridors. Include maps showing areas of impact from shadow flicker.

G. Inventory and describe existing sources of light and glare in and adjacent to the project area.

H. Identify and describe on and off-site measures for avoiding, reducing, or mitigating impacts resulting from light and glare.

(4) Aesthetics *– The applicant shall describe the aesthetic impact of the proposed energy facility and associated facilities and any alteration of surrounding terrain. The presentation will show the location and design of the facilities relative to the physical features of the site in a way that will show how the installation will appear relative to its surroundings. The applicant shall describe the procedures to be utilized to restore or enhance the landscape disturbed during construction (to include temporary roads).*

A. Provide daylight and nighttime visual simulations of the facility as viewed from principal viewer locations – scenic roads, towns, public spaces (i.e., Gorge Amphitheater, Washington Department of Transportation [WSDOT] I-90 Wild Horse Viewpoint, Gingko State Forest/Park, Wanapum Recreation Area, Iron Goat Trail, etc.). Include simulations for the turbine strings, the O&M facility, and the transmission lines, including alternative turbine and tower sizes. For the nighttime simulations, provide a photograph of an existing facility at night time.

B. Provide the duration period of the different impacts (i.e., temporary – construction only, or permanent).

C. Provide a summary and visual simulation of any plantings and their locations that will be installed to screen the towers, if any.

D. Provide description and summary of any new roads (temporary and permanent) and other ground disturbance or vegetation removal that may be visible from principal viewer location of the site.

E. Using local land-use and comprehensive plans (including Grant County), identify areas for future development from which the new towers may be visible but for which there is no current development.

F. Identify relevant federal (i.e., Bureau of Land Management [BLM], U.S. Forest Service [USFS]), state, and local land management plans and other policy documents within and adjacent to the site relevant to visual resources.

G. Identify and describe on and off-site measures for avoiding, reducing, or mitigating impacts to natural and built visual resources.

H. Provide visual simulation of the impact the 250-kV transmission lines will have on visual aesthetics.

I. Provide visual simulations for both the small tower and large tower alternative configurations.

WAC 463-42-342 Natural environment – Energy.

(4) Scenic resources *– The applicant shall describe any scenic resources which may be affected by the facility or discharges from the facility.*

A. The responses to Criteria A through E for WAC 463-42-362(4) above will meet the requirements of this WAC subsection.

B. Provide description of construction activities that may have temporary impacts on scenic resources such as road construction that may cause dust and obstruct or intrude on scenic views.

C. Provide an analysis and description of any scenic vistas from recreational trails and/or wilderness areas that would be impacted by tower placement.

D. Describe sensitive viewpoints and receptors in the project area based on existing land uses and number of potential viewers and viewer activity.

SEPA Requirements

Not applicable.

Other Requirements

Not applicable.

Existing Conditions

Impacts of the Proposed Action

Impacts of Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Population, Housing, and Economics

WAC 463-42-362 Built environment – Land and shoreline use.

(2) Housing *– The applicant shall describe potential impact on housing needs, costs, or availability due to influx of workers for construction and/or operation of the facility.*

Criteria regarding WAC 463-42-362(2) are included in the criteria presented below for WAC 463-42-535.

WAC 463-42-535 Socioeconomic impact. *The applicant shall submit a detailed socioeconomic impact study which identifies primary and secondary as well as negative impacts on the socioeconomic environment with particular attention and analysis of impact on population, work forces, property values, housing, traffic, health and safety facilities and services, education facilities and services, and local economy.*

A. Define the study area to be analyzed in the socioeconomic analysis, including counties and primary cities that might be affected by in-migration or employment within Kittitas County.

B. Housing Characteristics – Provide housing data for the latest year available. Include the total number of housing units in each jurisdiction addressed in Criteria A and B, number of units occupied, number and percent of units vacant, median home value, and median gross rent.

C. Employment and Economics –Compare direct and indirect revenues generated by the project for construction and operation (property tax, sales tax, B&O tax, payroll taxes) with direct and indirect expenditures (expanded public services and utilities).

D. Identify the major or key employers in each jurisdiction (i.e., major companies, government, schools, etc.), and the size of the labor force for each of those employers. Provide percentage of employed and unemployed people for each jurisdiction addressed in Criteria A and B.

E. Provide per capita and household income for the current available year data for each jurisdiction addressed in Criteria A and B.

F. Provide the size of the construction workforce for each project facility by month for the entire construction period. Indicate peak and average workforces. Identify where the workforce would originate from, including from within the County, the remainder of the study area, the State of Washington, and elsewhere nationwide. For those relocating to the area, estimate how many family members or dependents might in-migrate with them.

G. Provide the estimated size of the indirect workforce that would result from construction of the project.

H. Describe whether or not there is an adequate labor pool and skills to meet the direct construction, operation, and indirect employment needs of the project, for the areas described under A, above. If an adequate labor pool is not available, describe the impacts on local public services.

I. Indicate how many direct and indirect construction-related employees would temporarily relocate, how many would commute on a daily basis, and how many would commute on a weekly basis.

J. Describe how and where the direct construction, operation, and indirect workforces would be housed, and the potential impacts to area hotels, motels, rental houses, bed and breakfasts, and campgrounds.

K. Describe mitigation plans to meet shortfalls in housing needs for the direct and indirect construction workforces.

L. Describe how much would be spent (direct and indirect) for construction and operation of the entire project, including how much would be spent within the County, the defined study area, the state, and elsewhere in the United States.

M. If available describe how wage levels that vary from existing wage levels in the affected jurisdictions might affect existing employers, and wages overall in the region.

N. Describe how much and what types of taxes would be paid during construction, as a result of direct and indirect activities, and what jurisdictions would receive those tax revenues. Describe how these taxes would be paid through the construction period of the project.

O. Provide the size of the operational workforce for the entire operational period. Identify from where the workforce would originate, including from within the County, the remainder of the study area, the State of Washington, and elsewhere.

P. Compare the tax revenues identified in Criterion Q with additional service costs, if any (such as police, fire, health, etc.), and discuss the temporal gap (timing of the taxes and indirect impacts to the local economy should be identified) in income versus expenditures and mitigation, if needed.

Q. Describe other overall benefits (i.e., jobs, services, taxes, etc.) and costs of operation of the project on the economies of the County, the study area, the state, and other areas.

SEPA Requirements

No additional requirements.

Other Requirements

Environmental Justice (Federal Requirement)

No requirement.

Existing Conditions

Impacts of the Proposed Action

Environmental Justice

Impacts of Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Public Services and Utilities/Recreation

WAC 463-42-362 Built environment – Land and shoreline use.

(5) Recreation *– The applicant shall list all recreational sites within the area affected by construction and operation of the facility and shall then describe how each will be impacted by construction and operation.*

A. Identify all potentially affected public, semi-public, and private parks, recreational facilities, and other major recreational opportunities in Eastern Kittitas County and Western Grant County. For each of these facilities, provide the following information:

1. Describe the types of recreational experiences available (e.g., camping, picnic areas, parks, fishing, hunting, horseback riding, boat launches, beaches, hiking/trails, off road recreation, wilderness recreation, etc.), and their distances from the project site.

2. Describe the tentative construction schedule for the project and estimate when construction activities would likely affect each of the recreational facilities, and what the anticipated level of usage would be by the construction workforce. Identify operational impacts, if any.

3. Describe the construction and operational impacts to recreational facilities and users from:

   - Potential displacement of hunting and bird watching in the wind power project area.

   - Any potential direct, indirect, or cumulative impacts or displacement that users might experience during construction and operational phases of the plant.

   - Discuss potential mitigation measures for reduce impacts described above, and the subsequent impacts after mitigation.

B. Identify impacts of the project attracting tourists to the site to view and observe construction and operation of the wind turbines. Provide potential mitigation measures to ensure safety and containment of certain areas, such as a viewing platform, locked gates, informational brochures, etc.

C. Describe whether truck deliveries during construction will affect roads leading to Gingko State Park or whether the park will otherwise be affected by the project.

D. Describe the land use changes and limits within the corridors of the transmission lines.

WAC 463-42-382 Built environment – Public services and utilities. *The applicant shall describe the impacts, relationships, and plans for utilizing or mitigating impacts caused by construction or operation of the facility to the following:*

The goal of all of these criteria is to determine whether the applicable service is currently meeting standards, and whether the project would further exacerbate that problem, if it exists, or whether it would cause a local service to fall below standards of service and response.

(1) Fire

A. Identify all volunteer fire departments and fire districts that would serve the site. and provide the following information:

1. Number of personnel typically on duty and on-call, including the number that are voluntary versus full-time paid personnel.

(2) Police

A. Identify all police/sheriff departments servicing the site. For each department identified, and based on the potential impact to police services from construction or operation, provide the following information:

1. Number of police officers serving the area and services provided.

2. Anticipated additional personnel, holding facility, vehicle, equipment, special equipment, and other needs during construction, if any.

(3) Schools

A. Identify all schools within the Kittitas school districts.

B. If there is an in-migrating construction or operation workforce (see criteria for WAC 463-42-535 [Socioeconomic Impacts] included in Section 3.12.1, Population, Housing, and Economics, WAC Requirements), provide the following information for the schools identified in Criterion A above.

1. The total number of students at each school, as well as by grade.

2. The existing capacity within each school, and the percentage of available space.

3. Anticipated additional teachers and other personnel needed during the construction period, if any.

4. Proposed mitigation measures to address impacts, and the resulting reduced impacts after implementing mitigation.

(4) Parks or other recreational facilities

A. Information requests for parks and recreation are presented in WAC 463-42-362(5), above.

(5) Maintenance

A. Information requests for public maintenance services are included in criteria for WAC 463-42-535 (Socioeconomic Impacts), included in Section 3.12.1, Population, Housing, and Economics, WAC Requirements, of these Guidelines and Criteria (Population, Housing, and Economics).

(6) Communications

A. Identify the telephone, television, and radio companies that service the project area.

B. Identify procedures to be implemented to avoid that service interruption does not occur for in-ground communications facilities.

C. Identify procedures to be followed to respond to a project-related interruption of communications.

D. Describe the location of the closest cell phone tower (and provider) to the project site. Identify potential obstructions to cell phone service and the subsequent ability of cell phone users to contact emergency service providers in the case of an emergency.

E. Describe any radio or TV or other communication disruptions that might be caused by the towers and the response program in place to respond to complaints.

(7) Water/storm water

Criteria regarding water are included in criteria for WAC 463-42-322(5), presented below.

A. Address potential impacts that proposed on-site rock quarries or other construction activities could have on local wells adjacent to the project site

B. Estimate the amount of daily water requirements during construction and the source of the water.

C. Briefly describe proposed storm water conveyance and treatment facilities in or around the project site.

D. Describe plans for stormwater management and, if needed, containment, at substations and switchyards.

(8) Sewer/solid waste

A. Briefly describe adequacy of waste water facilities in Kittitas County; whether or not those facilities have excess capacity, and if so, how much; whether or not the project would use those facilities; and whether or not the facility capabilities can meet the project construction and operation needs.

B. Describe planned on-site sanitary waste disposal plans during construction.

C. Identify where solid waste transfer and disposal facilities exist that would serve that site and who operates them.

D. Estimate the annual amount of solid waste that would be generated during construction and operation of the project, indicate where that waste would likely be disposed of.

(9) Other government services or utilities

A. Emergency Medical Services

1. Identify all ambulance services serving the site.

- Number of volunteer and paid EMT, supervisory, and support personnel.
- Types of equipment available, including extraction equipment for getting personnel off the turbine towers.
- Availability of special support services, such as air ambulance service and so forth.
- How calls are received, units dispatched, and coordination occurs with other departments when needed (i.e., 911, cooperative agreements, etc.).
- Anticipated additional personnel needs during construction.
- Capability of emergency services to handle a major accident during construction and operation.

2. Identify each hospital and medical clinic serving the area, their size, capacity and occupancy.

- Availability of special support services such as air ambulance service, burn treatment facilities, and so forth.
- How calls are received and coordination occurs with other facilities when needed (i.e., 911, cooperative agreements, etc.).

B. Public Utilities

1. Describe who provides electrical services to the site and the nearby facilities that could be affected by the project. Describe how power from the turbines would be transmitted to the power grid, whether new or expanded substations would be required, and whether there is extra capacity on the system to carry the power.
2. If additional transmission facilities are required, provide location(s) and describe what they are and what their excess capacity would be once constructed. Describe whether the project would require any utility to change its operations or staffing to meet project needs.

C. Fiscal Impacts

1. Indicate whether or not county revenues from the project would be sufficient to cover any additional public services and/or whether expected property tax revenue would arrive too late to cover costs during construction.
2. If adequate tax revenues are not provided for any one or a number of the utilities and services, indicate what additional mitigation measures would be implemented.
3. If revenues are realized after impacts occur, indicate what additional mitigation measures would be implemented to resolve the timing differential (vis-à-vis., payments in lieu of taxes or additional mitigation payments).

WAC 463-42-322 Natural environment – Water. *The applicant shall provide detailed descriptions of the affected natural water environment, project impacts and mitigation measures*

and shall demonstrate that facility construction and/or operational discharges will be compatible with and meet state water quality standards. The applicant shall indicate the source and the amount of water required during construction and operation of the plant and show that it is available for this use and describe all existing water rights, withdrawal authorizations, or restrictions which relate to the proposed source.

***(5) Public water supplies** – The applicant shall provide a detailed description of any public water supplies, which may be used or affected by the project during construction or operation of the facility.*

A. The detailed response criteria to this WAC are addressed in Section 3.3.1, Water Resources, WAC Requirements.

B. Present a summary of the public water supplies information prepared in response to the above Criterion A.

SEPA Requirements

Not applicable.

Other Requirements

None.

Existing Conditions

Fire Protection

Police

Schools

Parks or Other Recreational Facilities

Maintenance

Communications

Septic System

Domestic Well

Solid Waste

Other Government Services or Utilities

Public Utilities

Fiscal Impacts

Impacts of Proposed Action

Impacts of Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Cultural Resources

WAC 463-42-362 Built environment—Land and shoreline use.

(6) Historic and cultural preservation *– The applicant shall list all historical and archaeological sites within the area affected by construction and operation of the facility and shall then describe how each will be impacted by construction and operation.*

A. Provide a summary of the cultural resources analyses done for the site. This summary should address background research, consultation, field surveys, test pits, conclusions, and impact analyses on cultural resources and historic properties that were conducted.

B. Conduct surveys in conjunction with Criterion A of cultural resources and historic properties for the all of project facilities including but not limited to all turbine strings, on-site step-up substations, off-site interconnect substations, existing two track roads, gravel roads, proposed transmission feeder lines, and existing power line rights-of-way. Provide a report of the surveys indicating what was found, including locations with

respect to the project's area of potential effect, an analysis of impacts, and whether or not further study is required.

C. If the results of the surveys conducted in response to Criterion B above indicate findings of either cultural resources or historic properties within or in the area of potential effect, conduct and report on the needed additional studies, impact analyses, and mitigation measures that would be incorporated into the project to avoid or minimize impacts.

D. State that Wind Ridge will hire a qualified archaeological monitor to be present when earth-disturbing activities are conducted during construction near known archaeological sites. Describe the procedures that will be followed if cultural resources are encountered during construction, including stop-work orders, contacting EFSEC, and development of mitigation plans.

E. State whether or not a tribal representative will be hired as an additional monitor during earth-disturbing construction activities.

F. Describe the communications Wind Ridge's consultant has had with affected tribes, provide copies of letters sent to and received by affected tribes, and describe the tribal contacts planned during the remainder of the application review process.

SEPA Requirements

Not applicable.

Other Requirements

A. Describe any government-to-government consultation and agreements that have occurred.

Existing Conditions

Impacts of the Proposed Action

Impacts of Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Traffic and Transportation

WAC Requirements

WAC 463-42-372 Built environment – Transportation.

(1) Transportation systems *– The applicant shall identify all permanent transportation facilities impacted by the construction and operation of the energy facilities, the nature of the impacts and the method to mitigate impacts. Such impact identification, description, and mitigation shall, at least, take into account:*

(a) Expected traffic volumes during construction, based on where the work force is expected to reside;

A. Identify the types of vehicles and the number of vehicles of each type that will be used during the construction of the project , and for what time period. For delivery of construction materials and equipment, also identify the location of the source, storage sites, and final destination. Identify where the construction workforce would reside, along with the anticipated times of their arrivals and departures.

B. Provide traffic counts or estimate the Average Daily Traffic (ADT) Volumes for roadways and PM peak hour traffic volumes for intersections at the following locations:

Roadways:

I-90 west of Exit 115

Main Street between I-90 and No. 81 Road

No. 81 Road south of Vantage Highway

Vantage Highway east of No. 81 Road

I-90 west of Vantage

Vantage Highway west of the site access

Vantage Highway east of the site access

Intersections:

I-90 and Exit 115 off ramps

Main Street and Patrick Avenue

Vantage Highway and No. 81 Road

C. Estimate the ADT and PM peak hour volume generated by the proposed project for the identified roads and intersections during construction of the facility, including directional split and percentage of trucks.

D. Describe the potential seasonal weather impacts on traffic to and from the site during construction of the facility (ice, snow, fog).

E. Describe the affects on traffic generated by special events such as those at the Gorge on construction activities.

F. Calculate roadway segment and intersection level of service for each identified location for existing conditions and during construction.

G. Provide documentation on applicable portions of WSDOT's and Kittitas County's Transportation Plan.

H. Describe conflicts with planned County or WSDOT road construction or repair schedules especially the recently authorized I-90: Rye Grass Summit to Vantage auxiliary lane project.

I. Document contact and coordination with WSDOT regarding construction traffic management. Define the largest size of trucks that will be required to transport the turbines and estimate the frequency of these trips.

J. Identify the transportation related impacts associated with the activities identified above, the measures included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

K. Identify how high volumes of construction materials (soils, water, fill, etc….) will be transported to and from the project site and transmission line corridor, including the maximum number of truckloads per day, and the impact of traffic on existing roads and highways.

(b) Access routes for moving heavy loads, construction materials, or equipment;

A. Identify routes and modes of transportation that will be utilized for moving heavy loads, construction materials, or equipment for construction or operation of the project , including the location of access points or terminals and transfer points (where goods or people will be transferred from one mode of transportation to another). Describe such routes and modes from the point of entry into the state to the site.

B. Describe the nature, condition and traffic restrictions on the following roadways:

I-90 west of Exit 115

I-90 west of Vantage

Main Street from I-90 to No. 81 Road

No. 81 Road from Main Street to Vantage Highway

Vantage Highway from No. 81 Road to Vantage

C. Discuss and identify applicable state and local regulations, standards, and guidelines, with respect to weight limits. Describe the expected weight of component delivery vehicles

D. Describe special measures that will be if delivery vehicle loads exceed legal height or length requirements.

E. Perform a pavement condition analysis for the following roadways and discuss the load bearing capacity:

Main Street from I-90 to No. 81 Road

No. 81 Road from Main Street to Vantage Highway

F. Identify and describe available sight distance at site entrance intersection.

G. Identify the transportation related impacts associated with the activities identified above, the measures included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

(c) Expected traffic volumes during normal operation of the facility;

A. Identify the types of vehicles, the number of vehicles of each type, and the route vehicles will use during the operation of the project , and during what part of the day. For the operations workforce, identify where they are anticipated to reside, along with the anticipated times of their arrivals and departures.

Estimate the ADT volume generated by the proposed project for each of the following roads during operation of the facility, including directional split and percentage of trucks:

I-90 west of Exit 115

Main Street between I-90 and No. 81 Road

No. 81 Road south of Vantage Highway

Vantage Highway east of No. 81 Road

I-90 west of Vantage

Vantage Highway west of the site access

Vantage Highway east of the site access

B. Estimate the PM peak hour volume generated by the proposed project for each of the following intersections during operation of the facility:

I-90 and Exit 115 off ramps

Main Street and Patrick Avenue

Vantage Highway and No. 81 Road

C. Provide details on traffic volume growth rates and discuss other potential development in the project area and region.

D. Estimate the typical ADT and PM peak hour traffic volumes during the first year of full project operation for the identified roadways and intersections.

E. Calculate the roadway segment and intersection level of service for each of the identified locations during the first year of full project operation.

F. Identify the transportation related impacts associated with the activities identified above, the measures included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

(d) For transmission facilities, anticipated maintenance access; and consistency with local comprehensive transportation plans.

A. Identify the location and expected frequency of use of maintenance roads. Identify whether the road will be open to the public.

(2) Vehicular traffic *– The applicant shall describe existing roads, estimate volume, types, and routes of vehicular traffic, which will arise from construction and operation of the facility. The applicant shall indicate the applicable standards to be utilized in improving existing roads and in constructing new permanent or temporary roads or access, and shall indicate a final disposition of new roads or access and identify who will maintain them.*

A. Identify all the public and private transportation modes and facilities that will be used during construction or operation of this project, including state, county and local roads, railroads, ports and harbors, and airports.

B. For those roads experiencing considerable traffic or heavy vehicles, identify the load bearing capacity. Perform a pavement condition analysis for the following roadways and discuss the load bearing capacity:

   Main Street from I-90 to No. 81 Road

   No. 81 Road from Main Street to Vantage Highway

C. Identify the existing ADT volume for the following roadway segments including directional split and percentage of trucks:

   I-90 west of Exit 115

   Main Street between I-90 and No. 81 Road

   No. 81 Road south of Vantage Highway

   Vantage Highway east of No. 81 Road

   I-90 west of Vantage

   Vantage Highway west of the site access

   Vantage Highway east of the site access

D. Discuss the effect of seasonal traffic for each of these identified roads.

E. Identify the existing average daily peakhour volume for each of the following intersections:

   I-90 and Exit 115 off ramps

   Main Street and Patrick Avenue

   Vantage Highway and No. 81 Road

F. Calculate the roadway segment and intersection level of service for each of the identified locations for existing conditions and during the first year of full project operation.

G. Identify any improvements to existing roads, intersections, or roadway approaches that will be used for construction or operation of the facility, and identify the design standards that will be used for the design and construction of these improvements.

H. Identify maintenance and repair expectations for state/county road systems resulting from the construction and operation of the facility, and who will be responsible for the work.

I. Describe the final disposition of all roads needed for the construction or operation of the facility and who will maintain them.

L. Include reports of interaction with the WSDOT and County.

M. Identify the transportation related impacts associated with the activities identified above, the measures included in the project design to minimize these impacts, potential mitigation measures that could further reduce these impacts.

(3) Waterborne, rail, and air traffic *– The applicant shall describe existing railroads and other transportation facilities and indicate what additional access, if any, will be needed during planned construction and operation. The applicant shall indicate the applicable standards to be utilized in improving existing transportation facilities and in constructing new permanent or temporary access facilities, and shall indicate the final disposition of new access facilities and identify who will maintain them.*

A. Identify and describe existing railroads and other transportation facilities (waterways, ports, airports, etc.) that will be used during construction or operation of the facility.

B. Identify the transportation-related impacts associated with the activities identified above and the measures included in the project design to minimize these impacts.

(4) Parking *– The applicant shall identify existing and any additional parking areas or facilities which will be needed during construction and operation of the energy facility, and plans for maintenance and runoff control from the parking areas or facilities.*

A. For the construction and operation workforce, identify the anticipated parking area requirements and location(s).

B. Describe the size and location of the construction worker parking lot.

(5) Movement/circulation of people or goods *– The applicant shall describe any change to the current movement or circulation of people or goods caused by construction or operation of the facility. The applicant shall indicate consideration of multipurpose utilization of rights-of-way and describe the measures to be employed to utilize, restore, or rehabilitate disturbed areas. The applicant shall describe the means proposed to ensure safe utilization of those areas under the applicant's control on or in which public access will be granted during project construction, operation, abandonment, termination, or when operations cease.*

A. Provide an estimate of the number of workers and support staff, split by significant work elements, required for the construction and operation of the facility. Include time frames (work schedules and overall duration) associated with each element identified.

B. Identify sources of goods and people, and the specific routes to be used during construction and operation of the facilities, including where fuel supplies will be obtained.

C. Describe the means proposed to ensure safe utilization of those areas under the applicant's control where public access will be granted during project construction, operation, abandonment, termination, or when operations cease.

D. Identify the transportation-related impacts associated with the activities identified above, the measures included in the project design to minimize these impacts, and potential mitigation measures that could further reduce these impacts.

(6) Traffic hazard *– The applicant shall identify all hazards to traffic caused by construction or operation of the facility. Except where security restrictions are imposed by the federal*

government the applicant shall indicate the manner in which fuels and waste products are to be transported to and from the facility, including a designation of the specific routes to be utilized.

A. Provide accident histories, rates, and types for the adjacent road system that will be affected by the construction or operation of the proposed project .

B. Provide anticipated accident rates that will result from traffic flow generated by the construction or operation of the proposed facility, particularly at the site access point.

C. Describe the means or measures to be taken to ensure access to the wind turbines during inclement weather if roadway grades exceed 8%.

SEPA Requirements

Discuss cumulative impacts on transportation including construction of other wind farms, WSDOT roadway improvements, peak traffic on I-90 on weekends and after Gorge concert events, or other construction projects..

Compare impacts of alternative project configurations in terms of transportation impacts.

Other Requirements

Not applicable.

Existing Conditions

Impacts of Proposed Action

Impacts of Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Health and Safety

WAC 463-42-155 Proposal – Energy transmission systems. *The applicant shall discuss the criteria utilized as well as describe the routing, the conceptual design, and the construction schedule for all facilities identified in RCW 80.50.020 (6) and (7) which are proposed to be constructed.*

A. For the new transmission lines, provide an estimate of electromagnetic field (EMF) levels at 50-foot intervals out to 500 feet as measured from the centerline of transmission line corridor.

B. Identify any receptors within 500 feet of the centerline of the transmission line corridor and the anticipated EMF level to be experienced by each receptor.

C. Discuss how potential receptor EMF levels influenced route selection.

D. Identify any facilities/structures along the proposed route that may be affected (e.g., electric shock potential) by the electric field from the new transmission lines and what measures would be utilized to reduce/minimize those effects.

E. Describe how seismic, geologic, wind-loading, and ice-loading factors have been considered in the design of the transmission lines.

F. Discuss how aircraft flight patterns were considered and if any marking provisions are planned.

G. Describe the grounding system for all project facilities.

WAC 463-42-205 Spillage prevention and control. *The applicant shall describe all spillage prevention and control measures to be employed regarding accidental and/or unauthorized discharges or emissions, relating such information to specific facilities, including but not limited to locations, amounts, storage duration, mode of handling, and transport.*

A. The detailed response criteria to this WAC are addressed in Section C, ASC Part II – Guidelines and Criteria for Technical Appendices, Appendix E.

B. Present a summary of the Spill Prevention and Control Plan prepared in response to the above Criterion A.

WAC 463-42-352 Built Environment – Environmental health.

(1) Noise *- The applicant shall describe the impact of noise from construction and operation and shall describe the measures to be taken in order to eliminate or lessen this impact.*

See criteria presented in Section 3.9.1, Noise, WAC Requirements.

(2) Risk of fire or explosion *– The applicant shall describe any potential for fire or explosion during construction, operation, standby or nonuse, dismantling, or restoration of the facility and what measures will be made to mitigate any risk of fire or explosion.*

A. Describe the fire detection and protection systems that will be utilized during both construction and operation.

B. Describe firefighting training that applicant will provide for personnel associated with the project and for members of area volunteer fire departments.

C. Describe the division of responsibility between personnel associated with the project and members of the area volunteer fire departments in the event of a fire or explosion. Provide documentation of this understanding with acknowledgement signatures from the fire departments.

D. Describe the potential for natural and human caused range fires, and prevention measures to be implemented during construction and operation of the project and the transmission line.

E. Explain how medical emergencies associated with fire and explosion will be handled. Provide documentation of this understanding with acknowledgement signatures from area medical facilities if they will be involved.

(3) Releases or potential releases to the environment affecting public health, such as toxic or hazardous materials *– The applicant shall describe any potential for release of toxic or hazardous materials to the environment and shall identify plans for complying with the federal*

Resource Conservation and Recovery Act and the state Dangerous Waste regulations (Chapter 173-303 WAC). The applicant shall describe the treatment or disposition of all solid or semisolid construction and operation wastes including spent fuel, ash, sludge, and bottoms, and show compliance with applicable state and local solid waste regulations.

A. Provide a list of all toxic or hazardous materials that will be stored/used onsite during both construction and operation. Indicate the quantities involved, storage locations, and volume of the largest storage container for each material.

B. Provide a list of all hazardous waste materials that will be produced during construction and operation. Indicate the quantities, storage locations, and planned manner of disposal.

C. Describe procedures/plans for complying with all applicable regulations/statutes (e.g., Chapter 173-303 WAC, Superfund Amendments and Reauthorization Act of 1986 [SARA] Title III, Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [CERCLA], and Model Toxics Control Act of 1988 [MTCA]) as part of the application or plans for addressing them in the future.

D. Provide a description of a worst-case scenario for a release of toxic or hazardous material present on the facility during construction and operation. Include a description of impacts of such releases on the public.

(4) Safety standards compliance *– The applicant shall identify all federal, state, and local health and safety standards which would normally be applicable to the construction and operation of a project of this nature and shall describe methods of compliance therewith.*

(5) Radiation levels *– For facilities which propose to release any radioactive materials, the applicant shall set forth information relating to radioactivity. Such information shall include background radiation levels of appropriate receptor media pertinent to the site. The applicant shall also describe the proposed radioactive waste treatment process, the anticipated release of radio nuclides, their expected distribution and retention in the environment, the pathways which may become sources of radiation exposure, and projected resulting radiation doses to human populations. Other sources of radiation which may be associated with the project shall be described in all applications.*

A. Address these measures for construction, operation, and maintenance activities that will utilize radiation sources to radiograph components associated with the project.

WAC 463-42-525 Emergency plans. *The applicant shall describe emergency plans which will be required to assure the public safety and environmental protection on and off the site in the event of a natural disaster or other major incident relating to or affecting the project and further, will identify the specific responsibilities which will be assumed by the applicant.*

A. Provide summary descriptions of the emergency plans for construction, operation, and maintenance that are to be presented in Appendix I.

SEPA Requirements

None.

Other Requirements

A. To define existing health risks, confirm the absence/presence of soil contaminants. List contaminants detected and their respective locations and concentrations. If contamination is present, describe how it will be managed/dealt with.

B. Describe the project design features that will prevent the introduction of voltage instability on the grid.

C. Describe the lightning protection system and whether the presence of the towers will increase the likelihood of lightning strikes.

D. Address how the project would affect communications systems in the area.

E. Address the potential for ice to form on turbine blades and subsequently be thrown off, endangering both humans and animals.

F. Address the potential dangers and impacts associated with broken, falling, or collapsed towers.

G. Address the potential safety impacts associated with broken and thrown turbine blades.

H. Address the project's strobing effect (shadow flicker) at sunset and sunrise caused by long shadows from rapidly turning blades and assess how it would affect humans, livestock, and wildlife. Predict and model the shadow-flicker effect on adjacent properties.

I. Address the potential health effects caused by light flicker.

Existing Conditions

Impacts of the Proposed Action

Provide summary descriptions of the emergency plans for construction, operation, and maintenance

Impacts of Alternatives

Mitigation Measures

Significant Unavoidable Adverse Impacts

Cumulative Impacts

WAC Requirements

Not applicable.

SEPA Requirements

The applicant should evaluate cumulative impacts of the Wild Horse Wind Power Project when combined with the other projects in the area and combined with the two other wind farms proposed in Kittitas County. Potential cumulative impact topics may include wind resource impacts, traffic, tax revenues, population, housing, employment, etc.

Global Warming

Regional Air Quality

Water Resources

Electrical Transmission Lines

Regional Energy Supply

Transportation, Population, and Housing

Cultural Resources

Fish, Wildlife, Native Plants

Visual Resources (if applicable)

Land Use

Public Services and Utilities

Revenue and Expenditures

Relationship Between Short term Uses of the Environment and the Maintenance and Enhancement of Long term Productivity

Irreversible or Irretrievable Commitments of Resources

Required EFSEC Information

Assurances

WAC 463-42-075 General – Assurances. *The application shall set forth insurance, bonding, or other arrangements proposed in order to mitigate for damage or loss to the physical or human*

environment caused by project construction, operation, abandonment, termination, or when operations cease at the completion of a project's life.

A. Provide specific information regarding the insurance, bonding, or other arrangements Wind Ridge has made or will make to mitigate environmental damage or loss due to the construction, operation, or maintenance of the project.

B. Explain how restoration will be funded if the project is abandoned at any time after construction begins and after termination.

General Sources of Information

WAC 463-42-095 General – Sources of information. *The applicant shall disclose sources of all information and data and shall identify all preapplication studies bearing on the site and other sources of information.*

A. Provide a bibliography of all studies conducted by the applicant or its consultants regarding the proposed project including the dates when each study was conducted and the date of any reports prepared for each study.

B. Provide appropriate references in addition to those cited in the ASC.

C. Provide a list of sources of information for data used in the ASC.

Legal Descriptions and Ownerships

WAC 463-42-135 Proposal - Legal descriptions and ownership interests.

(1) Principal facility: *The application shall contain a legal description of the site to be certified and shall identify the applicant's and all nonprivate ownership interests in such land.*

A. Provide this information for the site to be certified and for land required to be crossed to gain access to the site, including the land under the two alternative transmission alignments.

B. Show DNR lands and other government-owned lands at the site and along the two corridors.

C. Provide copies of lease agreements, option memoranda, letters of intent or other such documents indicating availability of the land to be used for siting to the applicant.

D. Provide mailing addresses of property owners within 3 miles of project site and within 1 mile of transmission line corridors.

(2) Ancillary facilities: *For those facilities described in RCW 80.50.020 (6) and (7) the application shall contain the legal metes and bounds description of the preferred centerline of the corridor necessary to construct and operate the facility contained therein, the width of the corridor, or variations in width between survey stations if appropriate, and shall identify the applicant's and others ownership interests in lands over which the preferred centerline is described and of those lands lying equidistant for 1/4 mile either side of such center line.*

A. The information requested above should be provided for the following:

1. Access roads used for construction and/or operation

2. Transmission lines, substations and switchyards

B. Provide the mailing addresses of all property owners within three miles surrounding the proposed project site, and within one mile either side of the centerline of the transmission corridors.

Construction Management

WAC 463-42-245 Proposal - Construction management. *The applicant shall describe the organizational structure including the management of project quality and environmental functions.*

A. Describe the overall applicant management structure of the project and site staff as well as that to be used for construction.

B. Describe the Quality Assurance/Quality Control (QA/QC) program and how it will be applied to the project.

C. Provide a Health and Safety Plan and a Spill Prevention Control and Countermeasure (SPCC) Plan before construction begins. Describe your commitment to provide such plans, and their general content, in the application.

D. Clearly identify the position responsible for compliance with health and safety regulations/requirements during construction.

E. Describe how and when "stop work" authority would be utilized and to whom it is assigned.

NPDES

WAC 463-42-435 NPDES application. *The applicant shall include a completed National Pollutant Discharge Elimination System permit application.*

A. Submit a complete National Pollutant Discharge Elimination System (NPDES) stormwater permit application for all construction activities associated with the project. The application should follow the requirements presented in Chapter 463-38 WAC.

B. Submit an application for coverage under the Sand and Gravel General NPDES Permit, (including portable facilities) following the requirements of Chapter 463-38 WAC.

C. Determine through discussions with EFSEC's Ecology Contractor whether or not an operational NPDES stormwater permit application is necessary. If required, submit a permit application following the requirements of Chapter 463-38 WAC.

D. At the time these guidelines and criteria were prepared, the Wild Horse Wind Power Project did not include a wastewater discharge during operation and, therefore, would not require an NPDES discharge permit. Describe the county requirements for sanitary waste disposal at the site.

PSD Permit Application

WAC 463-42-385 PSD application. *The applicant shall include a completed prevention of significant deterioration permit application.*

This section is not applicable for a wind generation facility. No prevention of significant deterioration (PSD) permit will be required because the facility will not emit 100 tons/year from stationary sources.

Emergency Plans

WAC 463-42-525 Emergency plans. *The applicant shall describe emergency plans which will be required to assure the public safety and environmental protection on and off the site in the event of a natural disaster or other major incident relating to or affecting the project and further, will identify the specific responsibilities which will be assumed by the applicant.*

A. Provide these emergency plans for construction, operation, and maintenance. If the plans are not available, provide a description of each plan, its table of contents, and a schedule for its development.

B. Specific events that should be addressed by the plans include the following:

1. Construction
2. Project evacuation
3. Fire
4. Aircraft impact
5. Blade failure
6. Chemical spill or release
7. Oil spill or release
8. Abnormal weather (fog and icing)
9. Earthquake
10. Volcanic eruption
11. Medical emergency
12. Facility blackout
13. Facility bomb threat
14. Vandalism
15. Tower failure

Each plan should include immediate actions, secondary actions, notifications, evacuation, emergency signals, and responsibilities, as appropriate.

Criteria, Standards, and Factors Utilized to Develop Transmission Route

WAC 463-42-625 Criteria, standards, and factors utilized to develop transmission route. *The applicant shall identify the federal, state, and industry criteria used in the energy transmission route selection and shall identify the criteria used and the construction factors considered in developing the proposed design and shall indicate how such criteria are met.*

A. Explain basic route selection criteria such as; reasons to deviate from a straight line to the switchyard, following drainages and canyons vs. ridge tops; tower design and color/material; when to underground and when to construct overhead.

B. Additional specific requirements:

1. See listing under WAC 463-42-155 under Health and Safety.

Initial site restoration plan

WAC 463-42-655 Initial site restoration plan. *The applicant or certificate holder shall in the application, or within twelve months after the effective date of this section, whichever occurs later, provide an initial plan for site restoration at the conclusion of the plant's operating life. The plan shall parallel a decommissioning plan, if such a plan is prepared for the project. The initial site restoration plan shall be prepared in sufficient detail to identify, evaluate, and resolve all major environmental, and public health and safety issues presently anticipated. It shall describe the process used to evaluate the options and select the measures that will be taken to restore or preserve the site or otherwise protect all segments of the public against risks or danger resulting from the site. The plan shall include a discussion of economic factors regarding the costs and benefits of various restoration options versus the relative public risk and shall address provisions for funding or bonding arrangements to meet the site restoration or management costs. The plan shall be prepared in detail commensurate with the time until site restoration is to begin. The scope of proposed monitoring shall be addressed in the plan.*

A. The plan required in WAC 463-42-655 is to be included in the ASC.

B. In addition to elements noted in the WAC, describe the level of restoration of all disturbed areas (returned to natural condition, enhanced, foundations left in place, remediation) and any plans for disposal or future use of the property.

Study Schedules

WAC 463-42-285 Proposal – Study schedules. *The applicant shall furnish a brief description of all present or projected schedules for additional environmental studies. The studies descriptions should outline their scope and indicate projected completion dates.*

A. Discuss any proposed monitoring studies to confirm potential impacts such as:

5. Bird strike monitoring
6. Large mammal avoidance behavior
7. Noise impacts confirmation
8. Radio/TV interference
9. Changes in cattle grazing practices

10. Recovery at mitigation site
11. Recovery at rehabilitation sites
12. Recovery at temporary equipment sites

General Guidance

WAC 463-42-010 Purpose and scope. *This chapter sets forth guidelines for preparation of applications for energy facility site certification pursuant to chapter 80.50 RCW.*

The application shall provide the council with information regarding the applicant, the proposed project design and features, the natural environment, the built environment, and plans for project termination and site restoration. This information shall be in such detail as determined by the council to enable the council to go forward with its application review.

A. By complying with the other guidelines and criteria presented in this chapter of the Potential Site Study, Wind Ridge Power Partners, LLC should be in compliance with, and no specific response will be needed for, WAC 463-42-010.

WAC 463-42-025 General – Designation of agent. *The applicant shall designate an agent to receive communications on behalf of the applicant.*

A. Provide the name, address, telephone number, fax number, and e-mail address of the individual with authority to speak for Wind Ridge Power Partners, LLC. This should be the individual who is to receive communications for the project, and who will represent WRPP at Council proceedings.

WAC 463-42-035 General – Fee. *The statutory fee shall accompany an application and shall be a condition precedent to any action by the council. Payment shall be by a cashier's check payable to the state treasurer.*

A. Provide a cashier's check payable to the state treasurer for the amount of $45,000 (see WAC 463-58-020 and -030). This deposit fee will be applied toward the costs of processing the application.

WAC 463-42-045 General – Where filed. *Applications for site certification shall be filed with the council at the council office.*

No comment.

WAC 463-42-055 General – Form and number of copies.

(1) Applications shall be on 8-1/2 by 11" sheets, in loose-leaf form with a hard cover binder. Applicants shall supply thirty-five copies of the application to the council, two copies to each county, two copies to each city, and one copy to each port district in which the proposed project would be located. In addition, one copy shall be supplied to each intervener on admission to the proceedings. Information later submitted shall be by page-for-page substitutions suitable for insertion in the application binder, bearing the date of the submission.

A. Where appropriate, the applicant may use 11- by 17-inch pages for graphics (such as route maps).

B. Determine with EFSEC staff the number of copies of the ASC to be provided . Provide with the cover letter a camera-ready copy of the entire ASC.

(2) An applicant shall also provide the council copies of its application in a digital format for use in personal computers. Digital format shall be determined by the council in consultation with its consultants and the applicant.

A. Provide a digital copy of the text of the ASC in Word 2000 or later format and a digital copy of the entire document in PDF format.

WAC 463-42-065 General – Full disclosure by applicants. *It is recognized that these guidelines can only be comprehensive in a relative sense. Therefore, and in addition to the other guidelines contained herein, the council adopts the basic guideline that an applicant for site certification must identify in the application all information known to the applicant which has a bearing on site certification.*

A. Provide a statement that the applicant has, to the best of its knowledge, included in the ASC all information known to them at the time of submittal of the ASC, that has a bearing on site certification.

WAC 463-42-095 General – Sources of information. *The applicant shall disclose sources of all information and data and shall identify all preapplication studies bearing on the site and other sources of information.*

A. Provide an alphabetical list of references cited in the ASC, including information on author, date of publication, publisher, and other information required to independently obtain the reference material.

WAC 463-42-105 General – Graphic material. *It is the intent that material submitted pursuant to these guidelines shall be descriptive and shall include illustrative graphics in addition to narration. This requirement shall particularly apply to subject matter that deals with systems, processes, and spatial relationships. The material so submitted shall be prepared in a professional manner and in such form and scale as to be understood by those who may review it.*

A. By complying with the other guidelines and criteria presented in this chapter of the Potential Site Study, Wind Ridge Power Partners, LLC should be in compliance with and no specific response will be needed for WAC 463-42-105

B. Due to the remote location of this project, the applicant should consider and incorporate small scale (large area) views in selected maps to incorporate adjacent population and/or wildlife areas on site maps and aerials.

WAC 463-42-115 General – Specific contents and applicability. *It is recognized that not all sections of these guidelines apply equally to all proposed energy facilities. If the applicant deems a particular section to be totally inapplicable the applicant must justify such conclusion in response to said section. The applicant must address all sections of this chapter and must substantially comply with each section, show it does not apply or secure a waiver from the council. Information submitted by the applicant shall be accompanied by a certification by applicant that all EFSEC application requirements have been reviewed, the data have been prepared by qualified professional personnel, and the application is substantially complete.*

A. Provide a request for a waiver, including justification, from specific sections of Chapter 463-42 WAC that are not applicable to the Wild Horse Energy project.

B. Provide a statement certifying that WRPP has reviewed all EFSEC application requirements, that the data have been prepared by qualified professional personnel, and that the application is substantially complete.

WAC 463-42-135 Proposal - Legal descriptions and ownership interests.

(1) Principal facility: *The application shall contain a legal description of the site to be certified and shall identify the applicant's and all nonprivate ownership interests in such land.*

A. Provide this information for the site to be certified and for land required to be crossed to gain access to the site.

B. Provide this information for the two transmission line alternatives.

WAC 463-42-665 Detailed site restoration plan – Terminated projects. *When a project is terminated, a detailed site restoration plan shall be submitted within twelve months after termination or within twelve months after the effective date of this section, whichever occurs later. An extension of time may be granted for good cause shown. The site restoration plan shall address the elements required to be addressed in WAC 463-42-655, in detail commensurate with the time until site restoration is to begin. The council may take or require action as necessary to deal with extraordinary circumstances.*

No response needed.

WAC 463-42-675 Site preservation plan – Suspended projects. *In the event that construction is suspended, a plan for site preservation shall be prepared at the earliest feasible time and the council shall be advised of interim concerns and the measures being taken to remedy those concerns. The site preservation plan shall address environmental, and public health and safety concerns, the scope of proposed monitoring and the provisions for funding or bonding to meet site preservation costs. It shall describe measures that will be taken to preserve the site or otherwise protect all segments of the pubic against risks or danger resulting from the site. The preservation plan shall also address options for preservation and the costs and benefits associated with those options. The council may take or require action as necessary to deal with extraordinary circumstances.*

See comments under site restoration.

WAC 463-42-680 Site restoration – Terminated projects. *In the absence of a council determination as to the level of site restoration, restoration of the site to a reasonable approximation of its original condition prior to construction shall be required.*

No comment.

WAC 463-42-690 Amendments to applications, additional studies, procedure.

(1) Applications to the council for site certification shall be complete and shall reflect the best available current information and intentions of the applicant.

A. By providing adequate responses to the criteria for WAC 463-42-065 and WAC 463-42-115, no criteria are required for WAC 463-42-690(1).

Note: Subsections (2), (3), and (4) of this WAC are addressed in the Introduction to Chapter IV.

(2) Amendments to a pending application must be presented to the council at least thirty days prior to the commencement of the adjudicative hearing, except as noted in subsection (3) of this section.

No comment.

(3) Within thirty days after the conclusion of the hearings, the applicant shall submit to the council, application amendments which include all commitments and stipulations made by the applicant during the adjudicative hearing.

No comment.

(4) After the start of adjudicative hearings, additional environmental studies or other reports shall be admitted only for good cause shown after petitions to the council or upon request of the council, or submitted as a portion of prefiled testimony for a witness at least thirty days prior to appearance.

No comment.

List of Preparers

WAC Requirements

Not applicable.

SEPA REQUIREMENTS

A. In response to WAC 197-11-440(2)(e), which addresses SEPA requirements for authors and principal contributors, provide a list of key individuals who contributed to preparation of the ASC and the responsibility of each person.

Acronyms

WAC Requirements

Not applicable.

SEPA Requirements

Not applicable.

Other Requirements

A. Provide a list of acronyms and their corresponding terms used in the ASC.